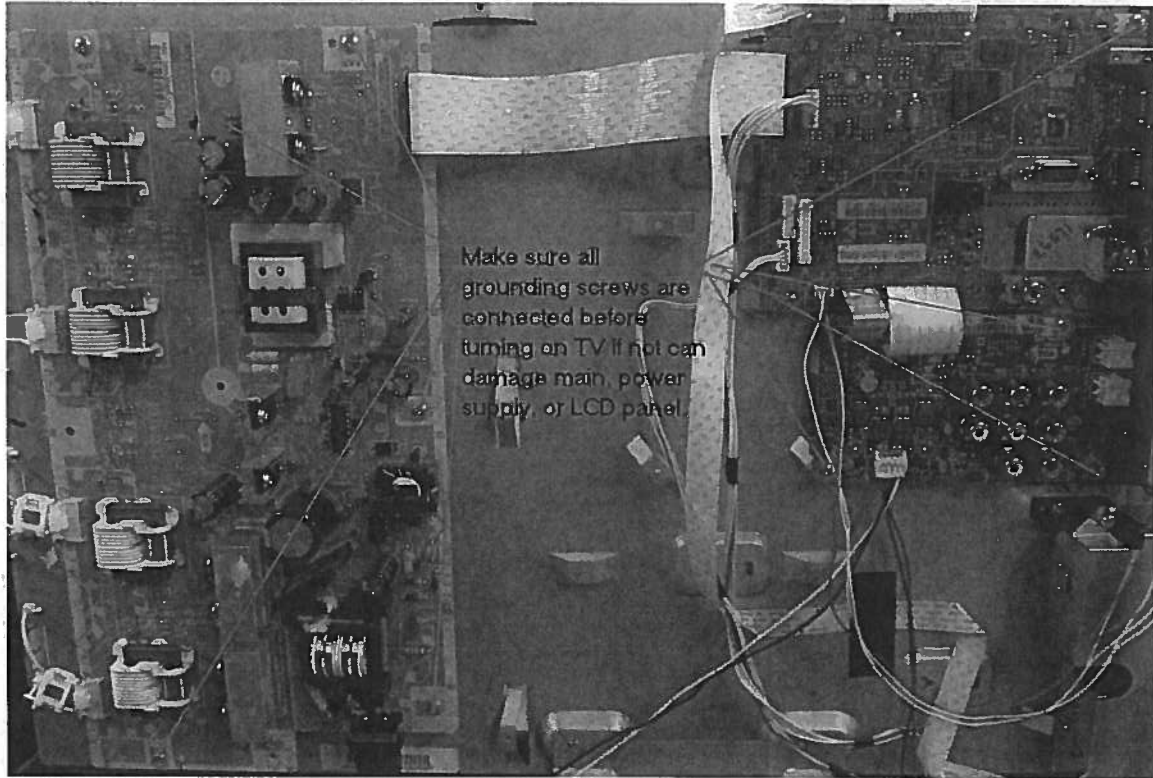


ATTENTION ON ALL DVD/TV combo TV's

When working on a TV/DVD combo unit make sure you have all your ground screws connected when turning on TV if not can damage the main board, power supply, or LCD panel.



WHEN REPLACING DVD DECK

[When removing the DVD Deck]

Before removing Pick Up PCB and DVD MT PCB connector, the short circuit the position shown in Fig. 1 using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.

[When installing the DVD Deck]

Remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD MT PCB connector.

NOTE

- Before your operation, please read "PREPARATION OF SERVICING".
- Use the Lead Free solder.
- Manual soldering conditions
 - Soldering temperature: $320 \pm 20^{\circ}\text{C}$
 - Soldering time: Within 3 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
- When Soldering/Removing of solder, use the draw in equipment over the Pick Up Unit to keep the Flux smoke away from it.

There are 4 solder pads. If the top & bottom pads are shorted together, this solder must be removed for the DVD to operate.

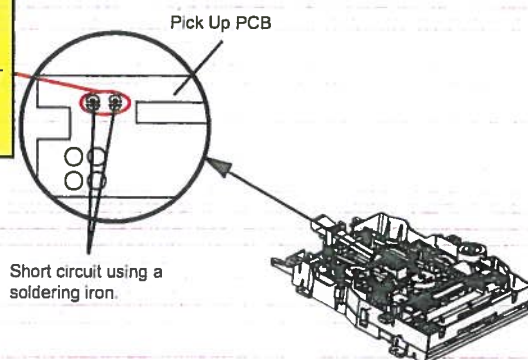


Fig. 1

PREPARATION OF SERVICING

The laser diode used for a pickup head may be destroyed with external static electricity. Moreover, even if it is operating normally after repair, when static electricity discharge is received at the time of repair, the life of the product may be shortened. Please perform the following measure against static electricity, be careful of destruction of a laser diode at the time of repair.

- Place the unit on a workstation equipped to protect against static electricity, such as conductive mat.
- Soldering iron with ground wire or ceramic type is used.
- A worker needs to use a ground conductive wrist strap for body.

There are 4 solder pads in the "white" circle. The top & bottom pads are shorted together from the factory and this solder must be removed for the DVD to operate.

The solder short has been removed. It is difficult to see, but the top & bottom pads are not connected/shorted. DVD will operate.



SANYO

SANYO Factory Code Z5BE

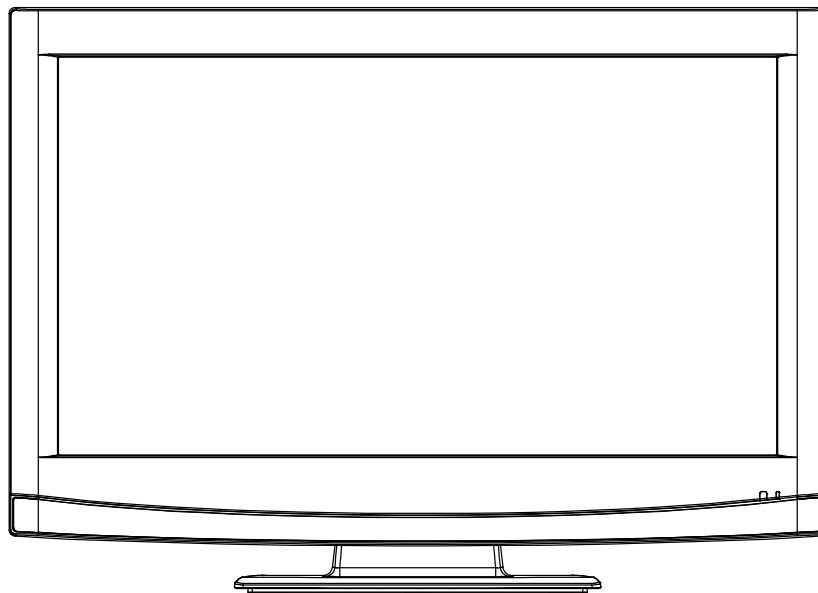
Service Reference NO. 521

DP32670

SERVICE MANUAL

18.5" HDTV LCD

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE



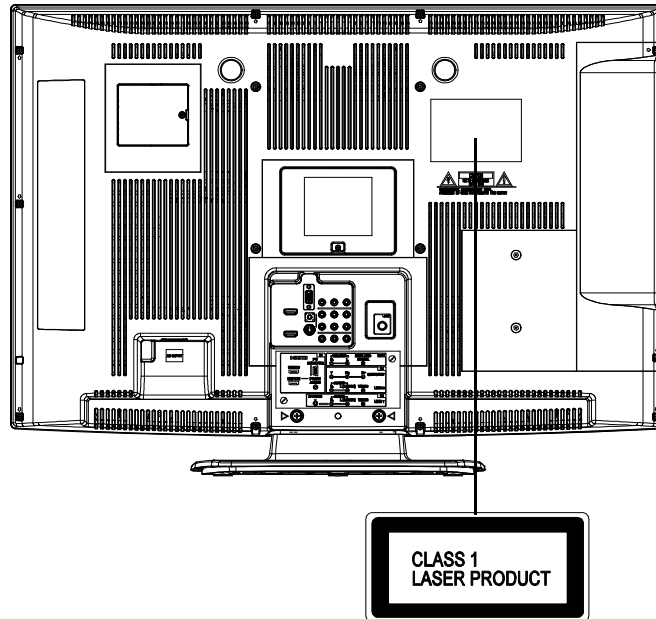
**ORIGINAL
MFR'S VERSION A**

IMPOTANT WARNING

CAUTION:

DVD PLAYER IS A CLASS 1 LASER PRODUCT. HOWEVER THIS PLAYER USES A VISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED. BE SURE TO OPERATE THE PLAYER CORRECTLY AS INSTRUCTED.

THE FOLLOWING CAUTION LABEL IS LOCATED ON THE REAR PANEL OF THE PLAYER.



(Printed on the Rear Panel)

WHEN THIS PLAYER IS PLUGGED TO THE WALL OUTLET, DO NOT PLACE YOUR EYES CLOSE TO THE OPENING OF THE DISC TRAY AND OTHER OPENINGS TO LOOK INTO THE INSIDE OF THIS PLAYER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

SERVICING NOTICES ON CHECKING

1. KEEP THE NOTICES


As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.

Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a  mark, the designated parts must be used.

4. BE CAREFUL WITH THE LCD PANEL

Avoid a shock to the panel while servicing. Take enough care to deal with it.

5. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

6. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

(INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the external exposure metal
[Note 2] should be more than 1M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 1M ohm, the inspection repair should be required.

[Note 1]

If you have not the 500V insulation resistance meter, use a Tester.

[Note 2]

External exposure metal: Antenna terminal
Headphone jack

HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the CHASSIS CODE.)

1. MODEL NUMBER and CHASSIS CODE
YOU can find it in the back of your unit.
2. PART NO. and DESCRIPTION
You can find it in your SERVICE MANUAL.

IMPORTANT

When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).

WHEN REPLACING DVD DECK

[When removing the DVD Deck]

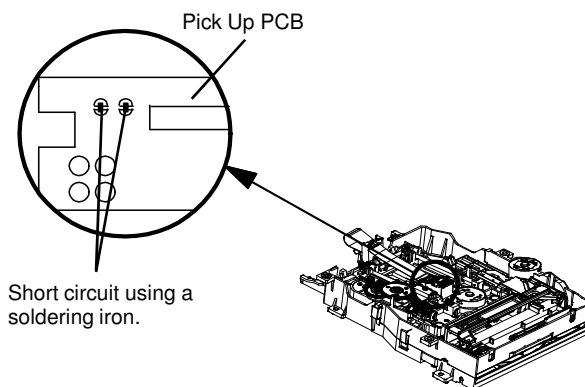
Before removing Pick Up PCB and DVD MT PCB connector, the short circuit the position shown in **Fig. 1** using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.

[When installing the DVD Deck]

Remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD MT PCB connector.

NOTE

- Before your operation, please read "PREPARATION OF SERVICING".
- Use the Lead Free solder.
- Manual soldering conditions
 - Soldering temperature: $320 \pm 20^{\circ}\text{C}$
 - Soldering time: Within 3 seconds
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- When Soldering/Removing of solder, use the draw in equipment over the Pick Up Unit to keep the Flux smoke away from it.



NOTE:

There are 4 solder pads. If the top & bottom pads are shorted together, this solder must be removed for the DVD to operate.

Fig. 1

PREPARATION OF SERVICING

The laser diode used for a pickup head may be destroyed with external static electricity. Moreover, even if it is operating normally after repair, when static electricity discharge is received at the time of repair, the life of the product may be shortened. Please perform the following measure against static electricity, be careful of destruction of a laser diode at the time of repair.

- Place the unit on a workstation equipped to protect against static electricity, such as conductive mat.
- Soldering iron with ground wire or ceramic type is used.
- A worker needs to use a ground conductive wrist strap for body.

DISC REMOVAL METHOD AT NO POWER SUPPLY

1. Remove the Stand, Back Cabinet Ass'y and LCD Panel.
(Refer to item 1 of the DISASSEMBLY INSTRUCTIONS.)
2. Slide the Gear Middle toward the arrow direction by hand to release the lock. (Refer to Fig. 1)
3. Take out the Disc from the DVD Deck. Be careful not to scratch on the Disc.

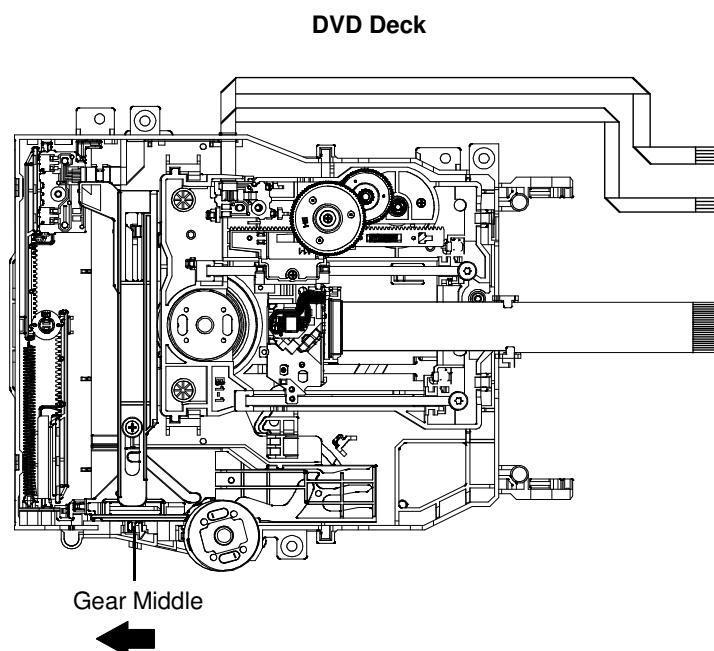


Fig. 1

PARENTAL CONTROL - RATING LEVEL 4 DIGIT PASSWORD CANCELLATION

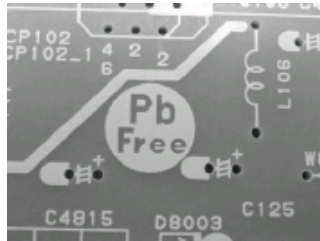
If the stored 4 digit password in the Rating Level menu needs to be cancelled, please follow the steps below.

1. Turn Unit ON.
2. Set the DVD to the Stop Mode.
3. Check that "No disc" is displayed on the screen.
4. Press and hold the "STOP" button on the front panel.
5. Simultaneously press and hold the "7" key on the remote control unit.
6. Hold both keys for more than 2 seconds.
7. The On Screen Display message "PASSWORD CLEAR" will appear.
8. The 4 digit password has now been cleared.

ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Caution:

- Pb free solder has a higher melting point than standard solder;
Typically the melting point is 86°F~104°F(30°C~40°C) higher.
Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C).
In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

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GENERAL SPECIFICATIONS

G-1	TV System	LCD	LCD Size / Visual Size	31.51 inch / 800.4mmV
			LCD Type	Color TFT LCD
			Number of Pixels	1366(H) x 768(V)
			Double Scan	No
			View Range	89/89 degree
			Left/Right Up/Down	89/89 degree
G-2	DVD System		Bright Dot	$n \leq 2$
			Zero Bright Dot Ratio	70%
		Color System		NTSC
		Speaker		2 Speaker
			Position	Front
			Size	1.6 x 4.8 inch
G-3	Tuning System		Impedance	8 ohm
		Sound Output	Max	5.0W + 5.0W
			10%(Typical)	---
		Color System		NTSC
		Disc		DVD, CD-DA, CD-R/RW
				DVD-R/RW (Video Format Only)
G-4	Signal	Disc Diameter		120 mm , 80 mm
		Drive		DSM-4
		Search speed	Fwd	4 step
			Actual	4, 8, 16, 32 times (DVD)
			Rev	4, 8, 16, 32 times (CD)
			Actual	4 step
G-5	Power		Actual	4, 8, 16, 32 times (DVD)
		Slow speed	Fwd	4, 8, 16, 32 times (CD)
			Actual	4 step
			Actual	1/16, 1/8, 1/4, 1/2 times
			Rev	4 step
			Actual	1/16, 1/8, 1/4, 1/2 times
G-6	Regulation	Broadcasting System	Analog	US System M
			Digital	ATSC(8VSB)/QAM
		Tuner and Receive CH	System	1Tuner
			Destination	US (W/CABLE)
		CH Coverage		2~69, 4A, A-5~A-1, A~I, J~W, W+1~W+94
		Intermediate Digital		44.00MHz
G-7	Temperature	Frequency Analog	Picture(FP)	45.75MHz
			Sound(FS)	41.25MHz
			FP-FS	4.50MHz
		Preset CH		No
		Stereo/Dual TV Sound		US-Stereo
		Tuner Sound Muting		Yes
G-8	Signal	Video Signal	Input Level	1 V p-p/75 ohm
			Output Level	--
			S/N Ratio (Weighted)	--
			Horizontal Resolution at DVD Mode	--
		RGB Signal	Output Level	--
		Audio Signal	Input Level	-8.0dBm/50k ohm
G-9	Power		Output Level	-12 dBm/ 1k ohm (-20dBFS, 0dBFS=2.0Vrms)
			at DVD	0-600mV /1k ohm
			at TV	0.5 V p-p/75 ohm
			Digital Output Level	85dB
			S/N Ratio at DVD (Weighted)	0.02% (1KHz)
			Harmonic Distortion	4 Hz - 44 KHz (96KHz)
G-10	Power		Frequency Response :	--
			at DVD	--
			at Video CD	--
			at SVCD	4 Hz - 20 KHz
			at CD	120V, 60Hz
				--
G-11	Power	Power Source	AC	108W at 120V 60Hz
			DC	--
		Power Consumption	at AC	0.3W at 120V 60Hz
			at DC	Yes (Ver.4.0)
			Stand by (at AC)	-- kWh/Year
			Energy Star	
G-12	Regulation	Protector	Power Fuse	Yes
			Safety Circuit	Yes
			IC Protector(Micro Fuse)	Yes
				UL(UL60065_7th)/cUL(CSA E60065_03)
			Safety	FCC/IC
			Radiation	DHHS
G-13	Temperature		Laser	
		Operation		+5°C ~ +40°C
		Storage		-20°C ~ +60°C
		Space Around Unit		10cm (4inch)

GENERAL SPECIFICATIONS

G-8	Operating Humidity	Less than 80% RH
G-9	Clock and Timer	No
	Sleep Timer	Max Time
	On Timer	Program
	Off Timer	Program
	Game Timer	No
	Timer Back-up (at Power Off Mode)	more than
		-- Min Sec
G-10	Remote Control	RC-SC
	Glow in Dark Remocon	No
	Remocon Format	SANYO
	Format	NEC
	Custom Code	38-C7 h
	Power Source	Voltage(D.C)
		UM size x pcs
	Total Keys	50 Keys
	Keys	POWER
		DISPLAY/-
		DISPLAY
		"_"
		TV/DVD
		EJECT
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0
		MUTE
		SLEEP
		SETUP/TV MENU
		DVD MENU
		ENTER
		Left
		Right
		Up
		Down
		CH+
		CH-
		VOL+
		VOL-
		CH+ / Up
		CH- / Down
		VOL+ / Right
		VOL- / Left
		EXIT/CANCEL
		TOP MENU
		SEARCH-
		PLAY
		SEARCH+
		SKIP-
		SUBTITLE
		STOP
		SKIP+
		SLOW-
		PAUSE
		PLAY MODE
		SLOW+
		AUDIO
		RETURN
		REPEAT A-B
		ANGLE
		Picture Size
		MARKER
		CCD/JUMP
		Recall(Quick View)/ZOOM
		INPUT SELECT
		FREEZE
		No

GENERAL SPECIFICATIONS

G-11	Features	Auto Shut Off	Yes
		Auto Search	No
		Power On Memory	Yes
		Hotel Mode	Yes
		Comb Filter	Yes 3-D
		Game Position	No
		Auto Setup	Yes
		Language	No
		TV Location	Yes
		Signal Type	Yes
		Automatic Search	Yes
		Picture Setting(TV)	Yes
		Picture Preference	Yes
		Brightness , Contrast , Color	Yes
		Tint	Yes
		Sharpness	Yes
		Color Temperature	Yes
		DNR	Yes
		Backlight	Yes
		Picture Setting(PC)	Yes
		HOR Position , VER Position	Yes
		Phase, Clock	Yes
		Red, Green, Blue	No
		Auto Adjust	Yes
		Audio	Yes
		MTS	Yes
		Tone Control (Bass/Treble/Balance)	Yes
		Stable Sound	No
		Surround	Yes
		BBE	No
		SRS WOW (SRS 3D/Focus/Tru Bass)	No
		HDMI Audio	Yes
		Variable Audio Out	Yes
		Tuning	Yes
		CH Program	Yes
		Air/Cable	Yes
		ADD/DELETE	Yes
		Label	Yes
		CH Label	Yes
		Video Label	Yes
		Favorite CH	No
		V-Chip	Yes
		Type	USA Type
		RRT Setup	Yes
		Lock	No
		Hotel Lock	No
		Channel Lock	No
		Video Lock	No
		Panel Lock	No
		Menu Language	Englis
		DBC (Dynamic Backlight Control)	No
		Dynamic Gamma	Yes
		Signal Meter (DTV Signal)	Yes
		Closed Caption	Yes
		CC Advanced	Yes
		V-Chip Clear	Yes
		Picture Size	Yes
		HD Zoom	Yes
		Film Mode	Yes
		Aspect	No
		PFC(Power Factor circuit)	No
		Freeze frame	No
		PIP/POP	No
		Direct Input Selection	Yes
		PC Plug and Play	No
		Energy Star LOGO (OSD)	Yes
		Digital Out	Yes
		Dolby Digital	Yes
		MPEG	No
		PCM	Yes
		DTS	No

GENERAL SPECIFICATIONS

	PC Monitor Input		Yes
		VGA (640x480)	Yes (60,72,75Hz)
		VGA (720x400)	Yes (70Hz)
		WVGA (848x480)	No
		SVGA (800x600)	Yes (56,60,72,75Hz)
		XGA (1024x768)	Yes (60,70,75Hz)
		WXGA (1280x768)	Yes (60Hz)
		WXGA (1280x720)	Yes (60Hz)
		WXGA (1360x768)	Yes (60Hz)
		SXGA (1280x1024)	No
	HDMI Input		Yes
		VGA (640x480)	Yes (60Hz)
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
		1920x1080p	Yes (60Hz)
		CEC (ORION Standard)	No
		Deep Color	No
		xvYCC	No
	DVI to HDMI Input	VGA (640x480)	Yes (60,72,75Hz)
		VGA (720x400)	Yes (70Hz)
		WVGA (848x480)	No
		SVGA (800x600)	Yes (56,60,72,75Hz)
		XGA (1024x768)	Yes (60,70,75Hz)
		WXGA (1280x768)	Yes (60Hz)
		WXGA (1280x720)	Yes (60Hz)
		WXGA (1360x768)	Yes (60Hz)
		SXGA (1280x1024)	No
	Component Input		Yes
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
		1920x1080p	No
	Wall Mount	Size W x H(mm)	Yes (200 x 200)
		Screw Size	M4 x 10
	Stand	Tilt	No
		Swivel	No
Features (DVD)	Video CD Playback		No
	SVCD Playback		No
	MP3 Playback		Yes
	JPEG		Yes
	WMA		Yes
	Macrovision		Yes (No Video Out)
	Divx Playback		No
	Digital Out	DMF Support	No
		(Dolby Digital)	Yes
		(MPEG)	Yes
		(PCM)	Yes
	Down Mix Out	(DTS)	Yes
		(Dolby Digital)	Yes
		(DTS)	No
	Auto Retract Disc		No
	Closed Caption		Yes
	Screen Saver		No
	TV Screen	4:3 (Letter Box, Pan Scan)	Yes
		16:9 (Wide)	Yes
	Audio DAC		192kHz / 24bit

GENERAL SPECIFICATIONS

G-12	Accessories	Owner's Manual		Language	English / Spanish
				w/Guarantee Card	Yes
		Remote Control Unit			Yes
		Rod Antenna			No
				Poles	--
				Terminal	--
		Loop Antenna			No
				Terminal	--
		U/V Mixer			No
		DC Car Cord (Center+)			No
		Guarantee Card			No
		Warning Sheet			No
		Circuit Diagram			No
		Antenna Change Plug			No
		Service Facility List			No
		Important Safeguard			No
		Dew/AHC Caution Sheet			No
		Quick Set-up Sheet			No
		Battery			No
				UM size x pcs	--
				OEM Brand	--
		AC Adapter			No
		AC Cord (for AC Adapter)			No
		AC Cord			Yes
		Cable Tie			No
		AV Cord (2Pin-1Pin)			No
		Registration Card (NDL Card)			No
		300 to 75ohm Antenna Adapter			No
		Sheet Information (FCC)			No
		Sheet Information (DTV)			No
		Sheet Information (Return)			Yes
		Sheet Information (Picture Quality)			Yes
		Sheet Information (Sheet Set Up)			No
		Sheet Information (HDMI)			No
		Sheet Information (CEA)			No
		Cleaning Cloth			No
		Stand Screw			Yes(2pcs)
		Stand			Yes
		Frame Stand			No
G-13	Interface	Switch	Side	Power (Tact)	Yes
				Channel Up/Menu Up/Play	Yes
				Channel Down/Menu Down/Stop	Yes
				Volume Up/Menu >	Yes
				Volume Down/Menu <	Yes
				Menu	Yes
				Play	No (CH+ Alternative)
				Eject	Yes
				Skip+, Search+	No
				Skip-, Search-	No
		Indicator	Rear	Still/Pause	No
				Stop	No (CH- Alternative)
				Main Power SW	No
				Input Select/Enter	Yes
				Main Power SW	No
				Power/Stand-By	Yes (Green / Red)
				Power Wake Up	No
				On Timer	No

GENERAL SPECIFICATIONS

	Terminals	Rear	Video Input 1	RCA x 1
			Audio Input 1	RCA x 2(L/MONO, R)
			S - Input 1	Yes
			Video Input 2	RCA x 1
			Audio Input 2	RCA x 2(L/MONO, R)
			S - Input 2	No
			Video Output	No
			Audio Output	RCA x 2 (Variable) (L, R)
			Component Input 1	RCA x 3
			Analog Audio	Video Input 2 Audio Input Alternative
			Component Input 2	No
			Analog Audio	No
			HDMI Input 1	Yes
			Analog Audio	PC Audio Input Alternative
			HDMI Input 2	Yes
			Analog Audio	No
			Sub Woofer Out	No
			PC Monitor Input	Yes
			Analog Audio	Mini Pin Jack(ϕ 3.5), STEREO
			Digital Audio Output	Coaxial
			DC Jack (Center +)	No
			VHF/UHF Antenna Input	F Type
			Video Input 3	No
			Audio Input 3	No
			S - Input 3	No
			Other Terminal	No
			AC Inlet	Yes
			USB (Software Update)	Yes
			USB (JPEG/MP3/Software Update)	No
G-14	Set Size		Approx. W x D x H (mm)	796.5 x 214 x 581
			w/o Handle, Stand Approx. W x D x H (mm)	796.5 x 96 x 534
G-15	Weight		Net (Approx.)	9.9kg (21.8lbs)
			Net w/o Handle, Stand (Approx.)	9.5kg (20.9lbs)
			Gross (Approx.)	12.4kg (27.3lbs)
			Gross w/Master Carton (Approx.)	--- kg (--- lbs)
G-16	Carton	Master Carton		No
			Content	--- Sets
			Material	--- / ---
			Dimensions W x D x H(mm)	---
			Description of Origin	---
		Gift Box	Material	Double/Brown
			W/Color Photo Label	No
			W/Handle	No
			Dimensions W x D x H(mm)	1022 x 193 x 654
			Description of Origin	No
		Drop Test		1 Corner / 3 Edges / 6 Surfaces
			Height (cm)	62
		Container Stuffing (40' container)		399 Sets/40' container
		w/Pallet		No
		w/Wrapping		No
G-17	Material	Cabinet	Front	PC+ABS 94V0 NON-HALOGEN
			Rear	PS 94V0 NON-DECABROM
			Stand	PS 94HB
			Jack Panel	--
		PCB	Non-Halogen Demand	No
			Eyelet Demand	Yes
G-18	Environment	Environmental standard requirement		Green procurement of ORION
		Pb-free		Phase3(Phase3A)
		Measures for Whisker		Yes
		Rohs		Yes

DISASSEMBLY INSTRUCTIONS

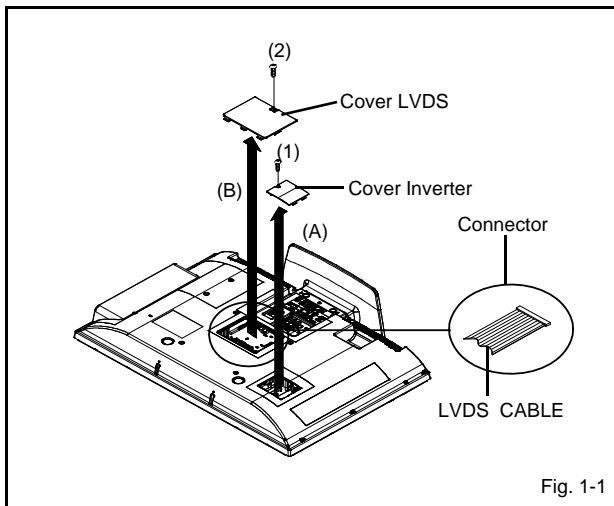
1. REMOVAL OF MECHANICAL PARTS AND P.C. BOARDS

CAUTION

Be careful not to remove the LVDS cable forcibly, because the LVDS cable may be damaged.

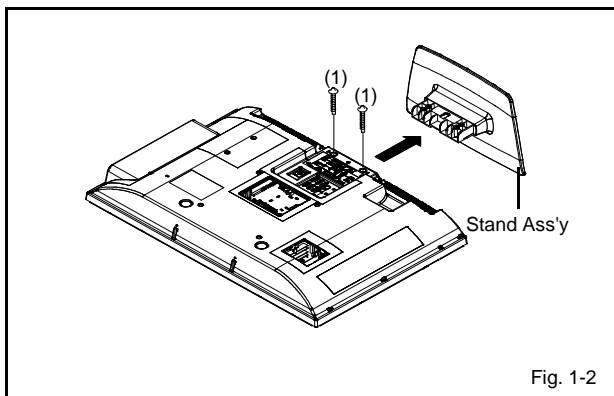
1-1: COVER INVERTER and COVER LVDS (Refer to Fig. 1-1)

1. Remove the screw (1).
2. Remove the Cover Inverter in the direction of arrow (A).
3. Disconnect the following connector: **(CP3803)**.
4. Remove the screw (2).
5. Remove the Cover LVDS in the direction of arrow (B).
6. Release the lock of connector disconnect the following connector: **(CP2804)**.



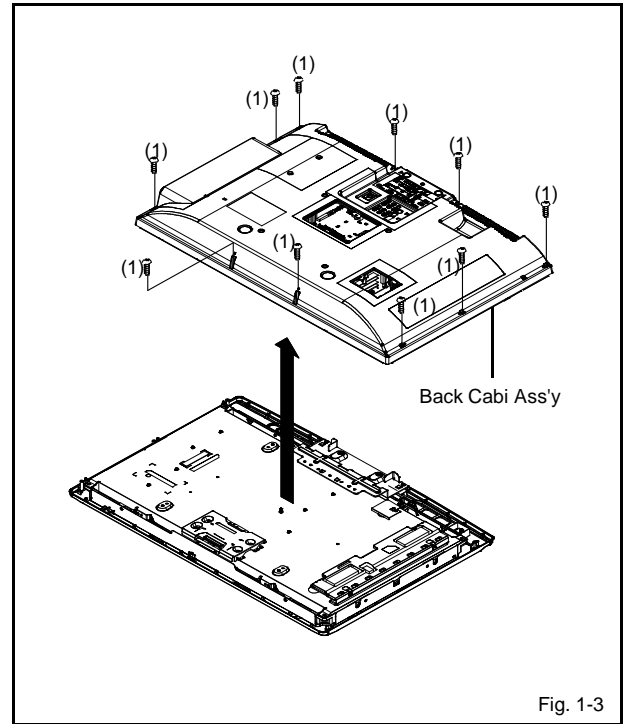
1-2: STAND ASS'Y (Refer to Fig. 1-2)

1. Remove the 2 screws (1).
2. Remove the Stand Ass'y in the direction of arrow.



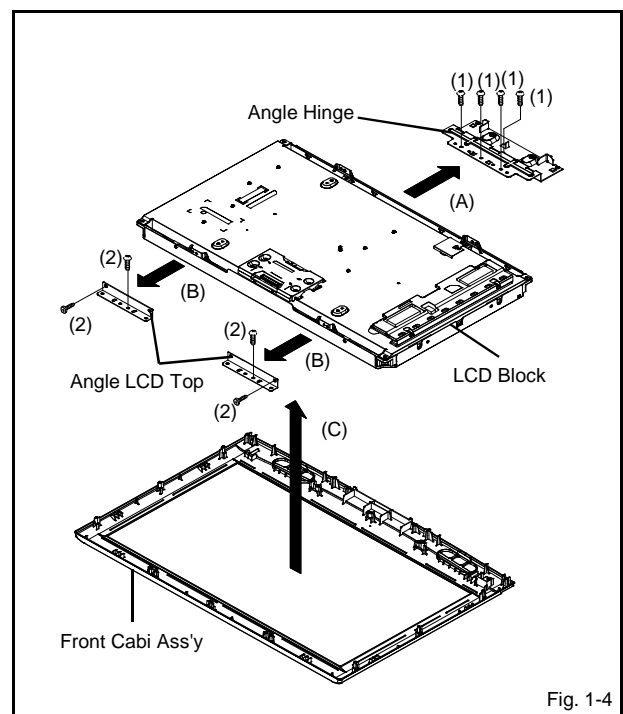
1-3: BACK CABI ASS'Y (Refer to Fig. 1-3)

1. Remove the 10 screws (1).
2. Remove the Back Cabi Ass'y in the direction of arrow.



1-4: LCD BLOCK (Refer to Fig. 1-4)

1. Remove the 4 screws (1).
2. Remove the Angle-Hinge in the direction of arrow (A).
3. Remove the 4 screws (2).
4. Remove the Angle LCD Top in the direction of arrow (B).
5. Remove the LCD Block in the direction of arrow (C).



DISASSEMBLY INSTRUCTIONS

1-5: DVD MT PCB and DVD DECK (Refer to Fig. 1-5)

1. Short circuit the position shown in Fig. 1-5 using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.
2. Disconnect the following connectors:
(CP2301, CP2302, CP2303, CP8501 and CP8502).
3. Remove the 3 screws (1).
4. Remove the DVD DECK Ass'y in the direction of arrow (A).
5. Unlock the 2 supports (2).
6. Remove the DVD MT PCB in the direction of arrow (B).
7. Remove the 4 screws (3).
8. Remove the Shield LVDS in the direction of arrow (C).
9. Remove the Shield LVDS Bottom in the direction of arrow (D).

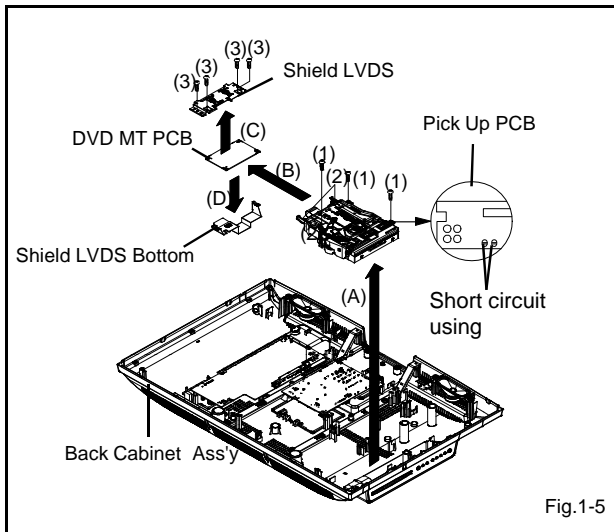


Fig.1-5

NOTE

1. Before your operation, please read "PREPARATION OF SERVICING".
2. Use the Lead Free solder.
3. Manual soldering conditions
 - Soldering temperature: $320 \pm 20^{\circ}\text{C}$
 - Soldering time: Within 3 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
4. When Soldering/Removing of solder, use the drawing equipment over the Pick Up Unit to keep the Flux smoke away from it.
5. When installing the DVD Deck, remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD MT PCB connector.

1-6: POWER PCB (Refer to Fig. 1-6)

1. Disconnect the following connectors:
(CP3808 and CP3809).
2. Remove the 5 screws (1).
3. Remove the Power PCB in the direction of arrow.

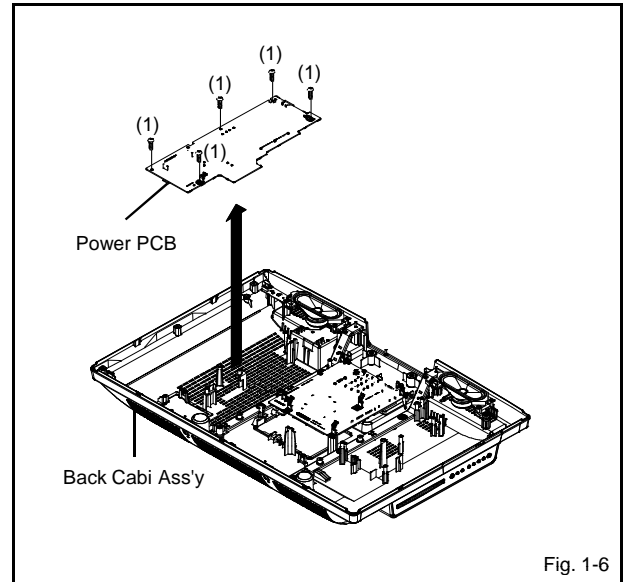


Fig. 1-6

1-7: DIGITAL PCB (Refer to Fig. 1-7)

1. Disconnect the following connectors:
(CP301, CP6202 and CP6204).
2. Remove the 7 screws (1).
3. Remove the Digital PCB in the direction of arrow.

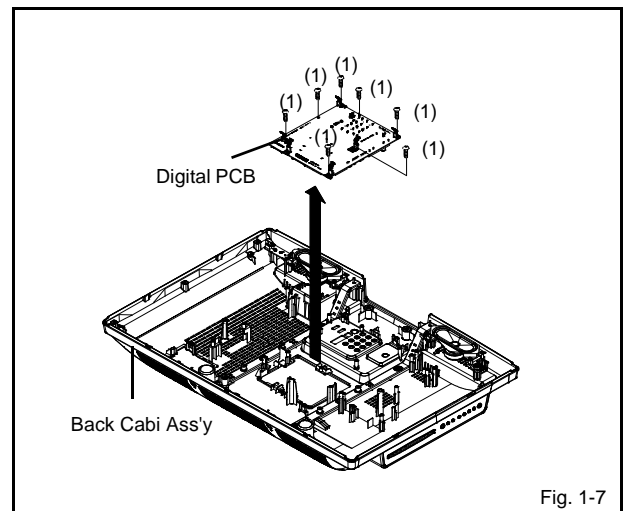
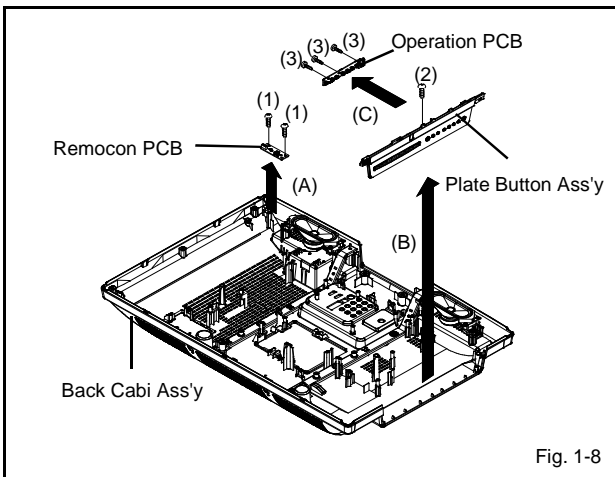


Fig. 1-7

DISASSEMBLY INSTRUCTIONS

1-8: OPERATION PCB and REMOCON PCB (Refer to Fig. 1-8)

1. Remove the 2 screws (1).
2. Remove the Remocon PCB in the direction of arrow (A).
3. Remove the screw (2).
4. Remove the Plate Button Ass'y in the direction of arrow (B).
5. Remove the 3 screws (3).
6. Remove the Operation PCB in the direction of arrow (C).



DISASSEMBLY INSTRUCTIONS

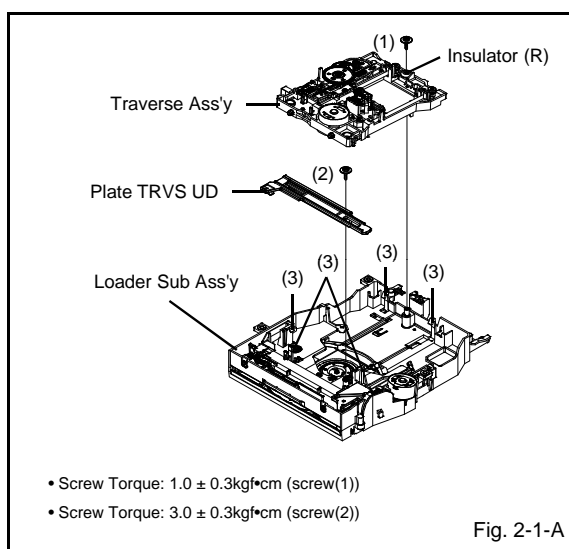
2. REMOVAL OF DVD DECK PARTS

NOTE

1. Disassemble only the DVD DECK PARTS parts listed here. Minute adjustments are needed if the disassembly is done. If the repair is needed except listed parts, replace the DVD MECHA ASS'Y.

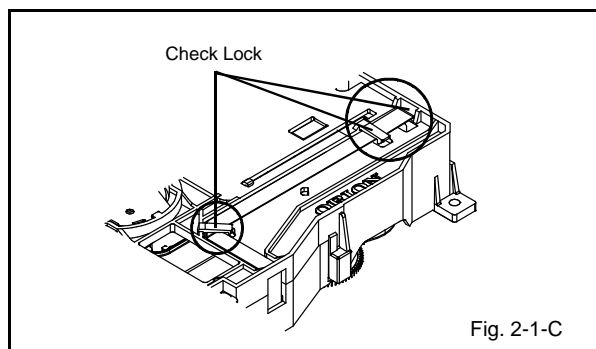
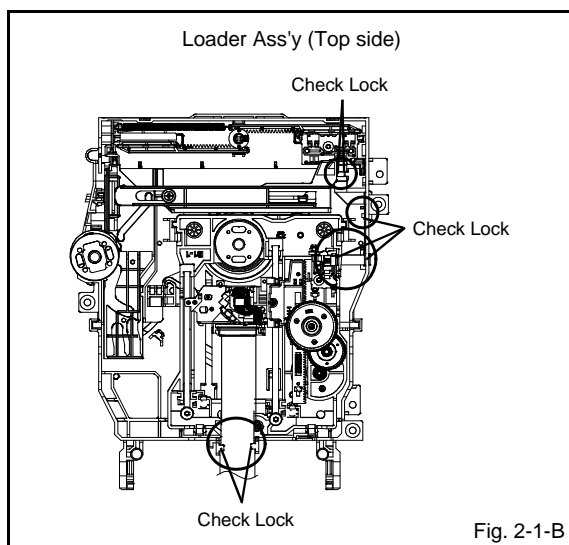
2-1: TRAVERSE ASS'Y/LOADING MOTOR PCB ASS'Y/ PLATE TRVS UD (Refer to Fig. 2-1-A)

1. Remove the screw (1).
2. Remove the screw (2).
3. Unlock the 5 supports (3).
4. Remove the Insulator (R) from the Loader Ass'y.
5. Remove the Traverse Ass'y and Plate Trvs Ud.



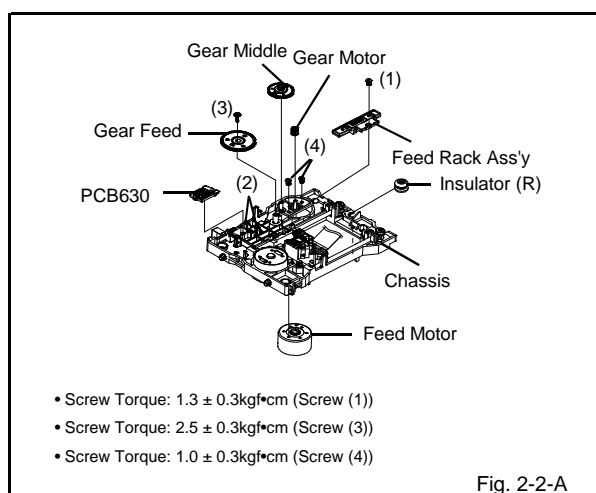
NOTE

1. In case of the Traverse Ass'y installation, hook the wire on the Loader Ass'y as shown Fig. 2-1-B to Fig. 2-1-C.



2.2: INSULATOR (R)/FEED RACK ASS'Y/ PCB630/GEAR MIDDLE/GEAR FEED/ FEED MOTOR/GEAR MOTOR (Refer to Fig. 2-2-A)

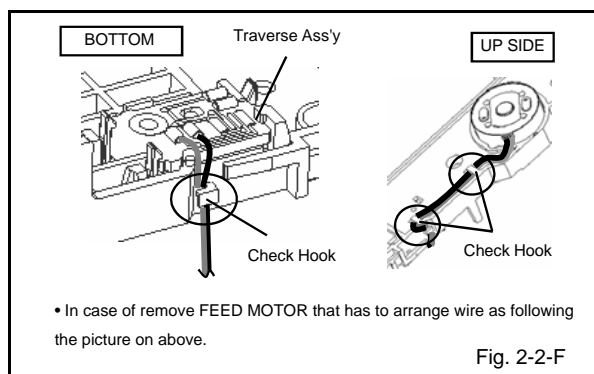
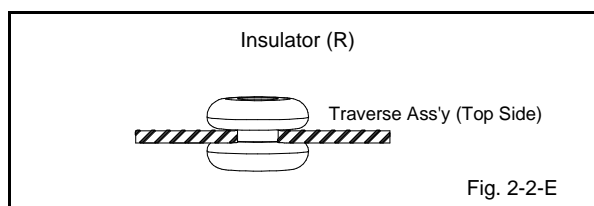
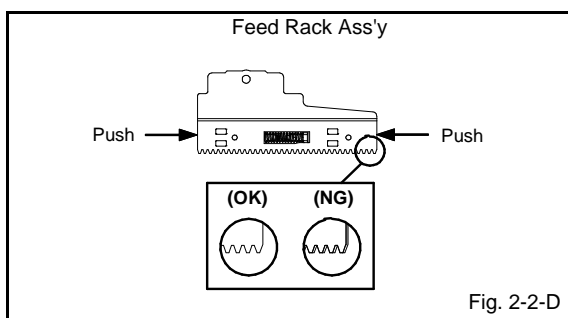
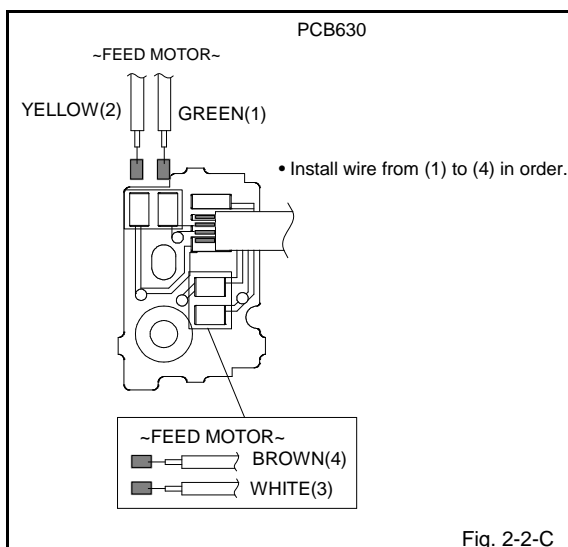
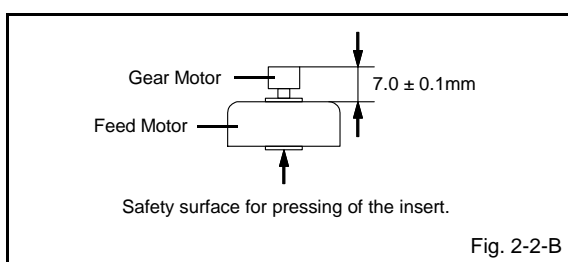
1. Remove the Insulator (R).
2. Remove the screw (1).
3. Remove the Feed Rack Ass'y.
4. Unlock the 2 supports (2).
5. Remove the PCB630.
6. Remove the screw (3).
7. Remove the Gear Feed.
8. Remove the Gear Middle.
9. Remove the 2 screws (4).
10. Remove the Gear Motor.
11. Remove the Feed Motor.



DISASSEMBLY INSTRUCTIONS

NOTE

1. In case of the Gear Motor installation, check if the value of the Fig. 2-2-B is correct.
2. When installing the wire of the PCB630 install it correctly as Fig. 2-2-C.
Manual soldering conditions
 - Soldering temperature: $350 \pm 5^{\circ}\text{C}$
 - Soldering time: Within 4 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
3. When installing the Feed Rack Ass'y, push both ends to align the teeth as shown Fig. 2-2-D. Then install it.
4. In case of the Insulator (R) installation, install correctly as Fig. 2-2-E.
5. After the assembly of the Traverse Ass'y, hook the wire on the Traverse Ass'y as shown Fig. 2-2-F.

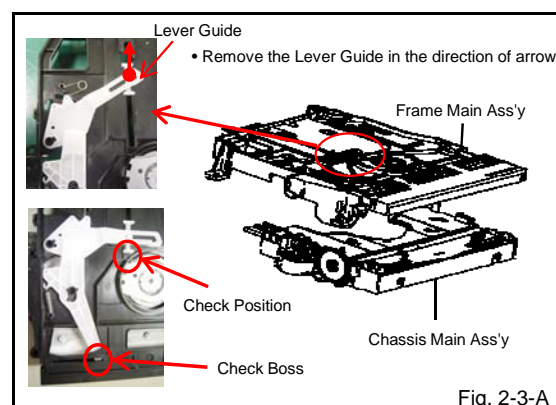


2.3: GEAR ROLLER/LUMIRROR WASHER/ ROLLER CONE/SHAFT ROLLER/ LOADING MOTOR PCB/LOADING MOTOR/ GEAR WORM/RACK LEVER (Refer to Fig. 2-3-B)

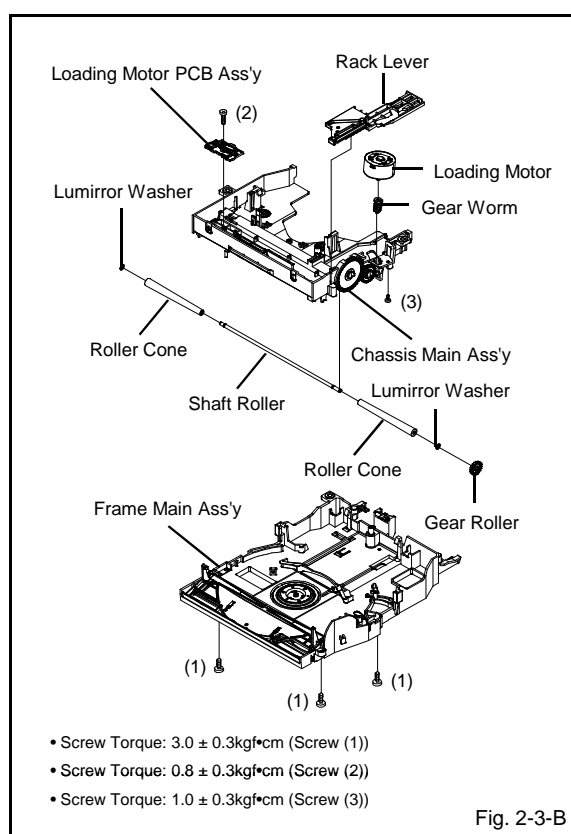
1. Remove the 3 screws (1).
2. Remove the Chassis Main Ass'y.
3. Remove the Roller Ass'y.
4. Remove the Gear Roller.
5. Remove the Lumirror Washer.
6. Remove the Roller Cone.
7. Remove the Shaft Roller .
8. Remove the screw (2).
9. Remove the Loading Motor PCB Ass'y.
10. Remove the screw (3).
11. Remove the Loading Motor.
12. Remove the Gear Worm.
13. Remove the Rack Lever.

NOTE

1. When Chassis Main Ass'y is removed, it is necessary to change the position of Lever Disc and Guide Disc.
2. In case of the Chassis Main Ass'y, check position Lever Disc, Lever Guide and Boss of Rack Disc Sensor as shown Fig. 2-3-A.

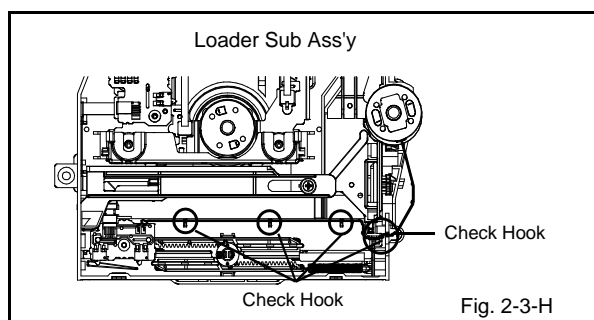
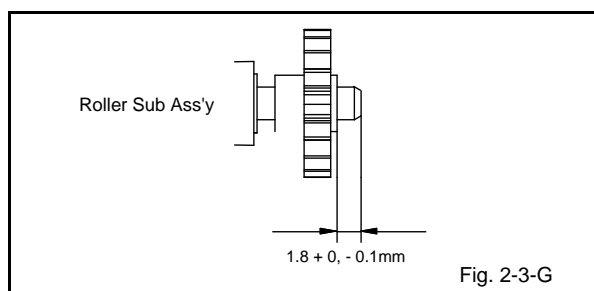
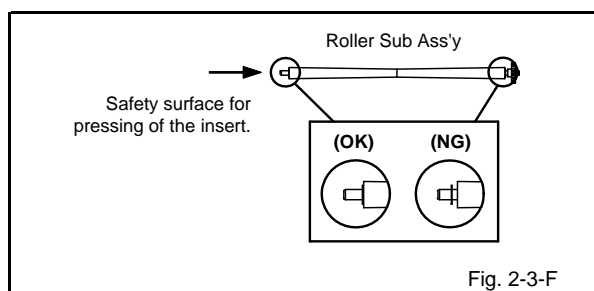
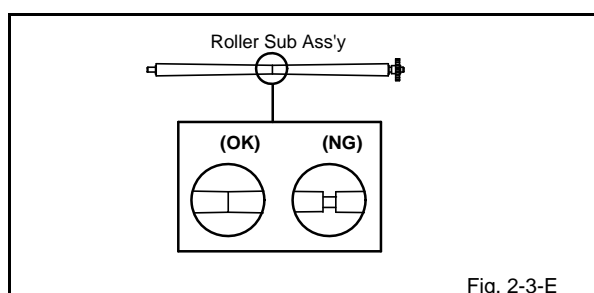
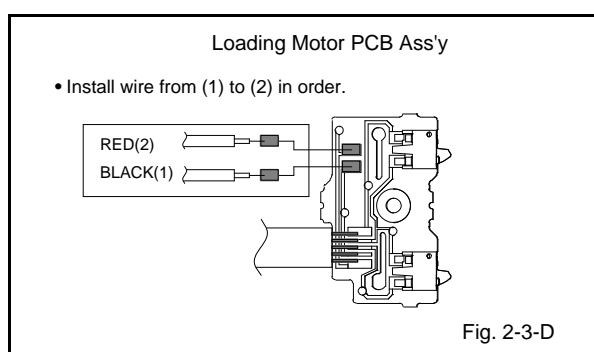
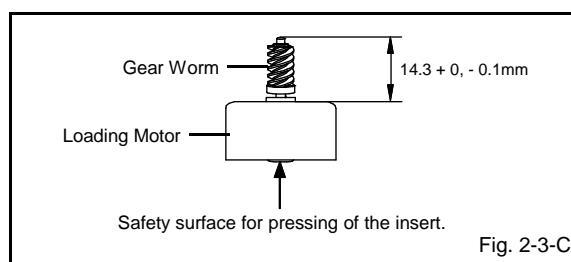


DISASSEMBLY INSTRUCTIONS



NOTE

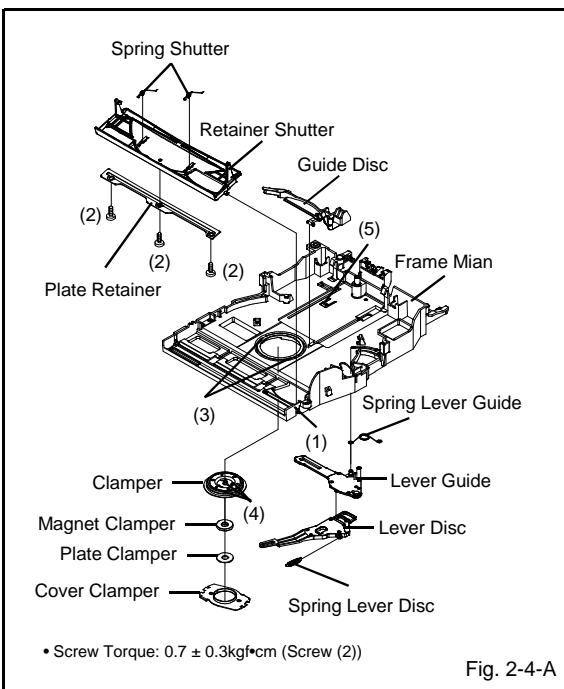
1. In case of the Gear Worm installation, check if the value of the Fig. 2-3-C is correct.
2. When installing the wire of the Loading Motor PCB Ass'y, install it correctly as Fig. 2-3-D.
 Manual soldering conditions
 - Soldering temperature: $350 \pm 5^\circ\text{C}$
 - Soldering time: Within 4 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
3. In case of the Roller Cone installation, install correctly as Fig. 2-3-E.
4. In case of the Lumirror Washer installation, install correctly as Fig. 2-3-F.
5. In case of the Gear Roller installation, check if the value of the Fig. 2-3-G is correct.
6. After the assembly of the Loader Sub Ass'y, hook the wire on the Loader Sub Ass'y as shown Fig. 2-3-H.



DISASSEMBLY INSTRUCTIONS

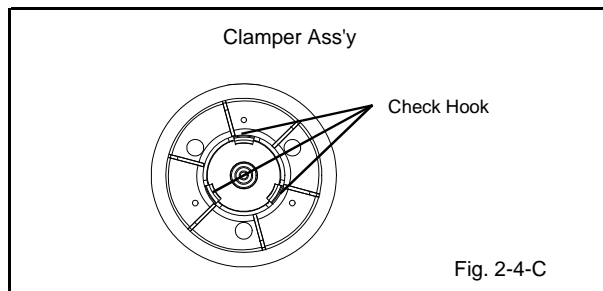
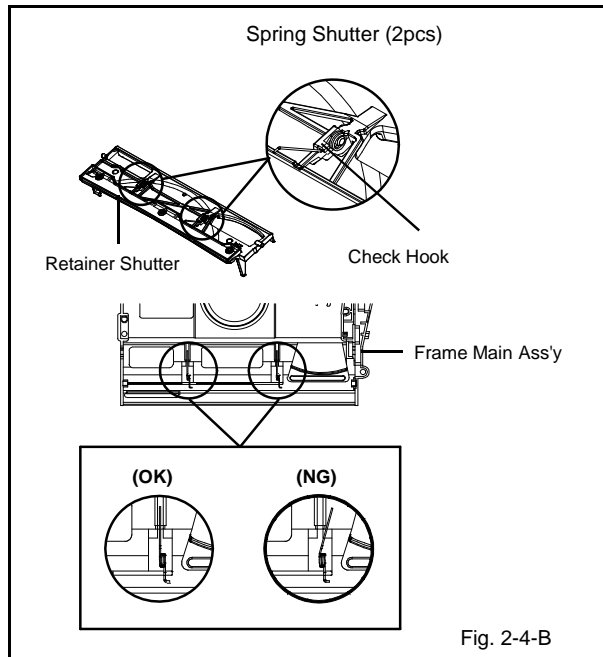
2.4: SPRING SHUTTER/PLATE RETAINER/ RETAINER SHUTTER/COVER CLAMPER/ PLATE CLAMPER/MAGNET CLAMPER/ CLAMPER/GUIDE DISC/LEVER DISC/ SPRING LEVER GUIDE/SPRING LEVER DISC/ LEVER DISC (Refer to Fig. 2-4-A)

1. Unlock the support (1).
2. Remove the Retainer Shutter Ass'y.
3. Remove the Spring Shutter.
4. Remove the 3 screws (2).
5. Remove the Plate Retainer.
6. Remove the Retainer Shutter.
7. Unlock the 2 supports (3).
8. Remove the Cover Clamper.
9. Unlock the 3 supports (4).
10. Remove the Plate Clamper.
11. Remove the Magnet Clamper.
12. Remove the Clamper.
13. Unlock the support (5).
14. Remove the Guide Disc.
15. Remove the Lever Guide.
16. Remove the Spring Lever Guide.
17. Remove the Spring Lever Disc.
18. Remove the Lever Disc.



NOTE

1. In case of the Retainer Shutter Ass'y installation, check if the value of the Fig. 2-4-B is correct.
2. In case of the Clamper Ass'y installation, check if the value of the Fig. 2-4-C is correct.

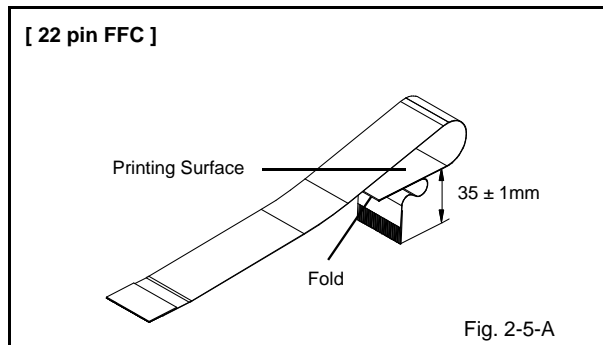


2-5: FFC WIRE HANDLING

1. When installing the FFC, fold it correctly and install it as shown from Fig. 2-5-A to Fig. 2-5-D.

NOTE

1. Do not make the folding lines except the specified positions for the FFC.



DISASSEMBLY INSTRUCTIONS

Install the position (A) and (B)

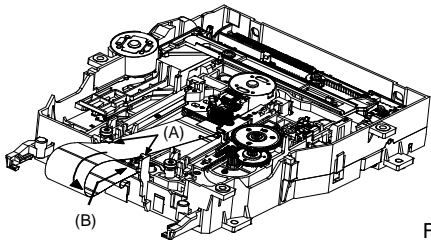


Fig. 2-5-B

[4 pin FFC]

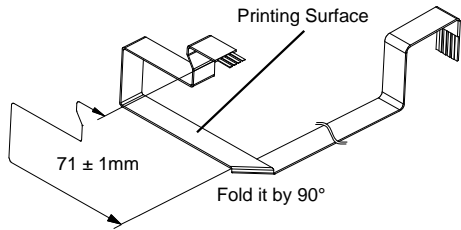


Fig. 2-5-C

[5 pin FFC]

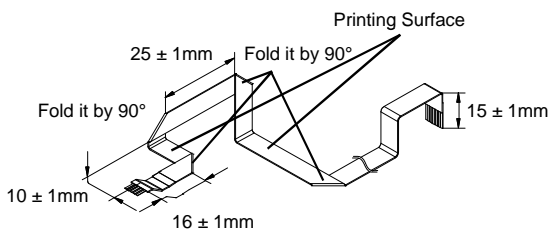


Fig. 2-5-D

DISASSEMBLY INSTRUCTIONS

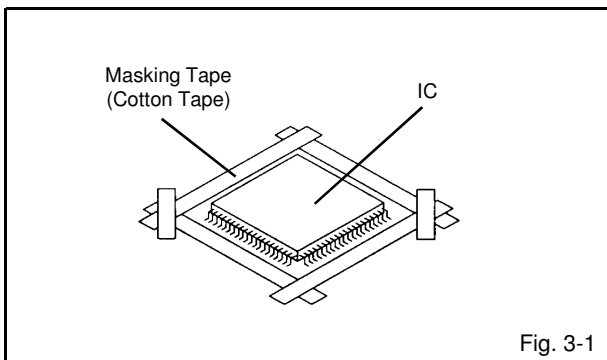
3. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. **(Refer to Fig. 3-1.)**

NOTE

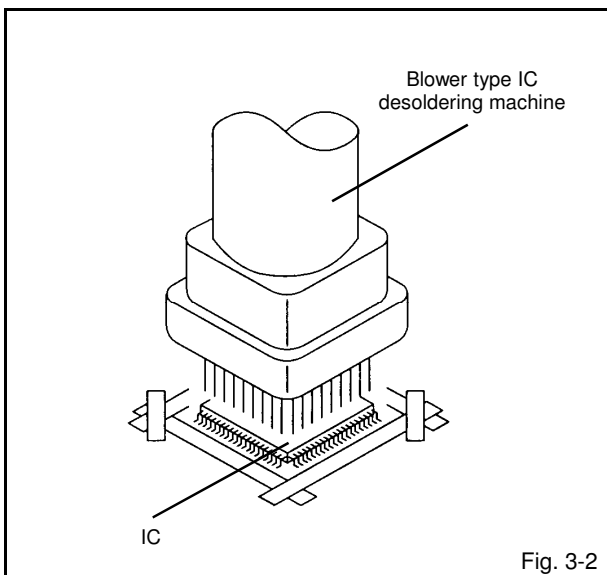
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. **(Refer to Fig. 3-2.)**

NOTE

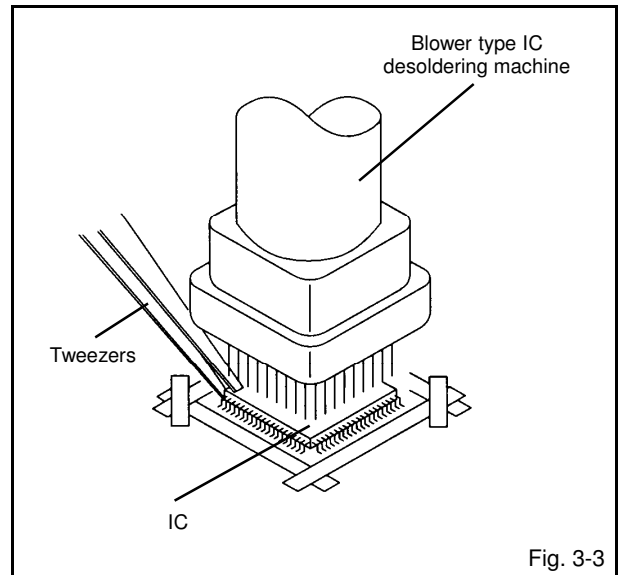
Do not rotate or move the IC back and forth, until IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using tweezers and remove the IC by moving with the IC desoldering machine. **(Refer to Fig. 3-3.)**

NOTE

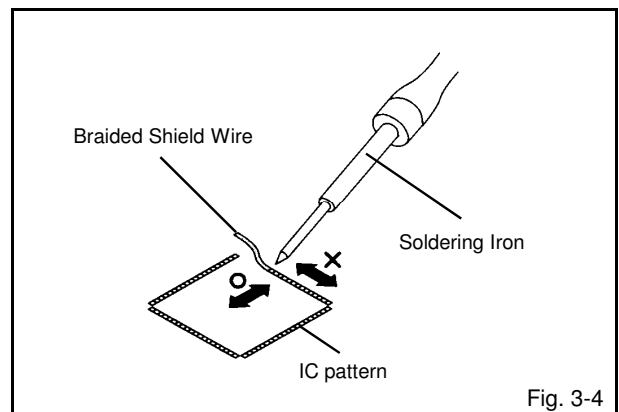
Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.



4. Peel off the Masking Tape.
5. Absorb the solder left on the pattern using the Braided Shield Wire. **(Refer to Fig. 3-4.)**

NOTE

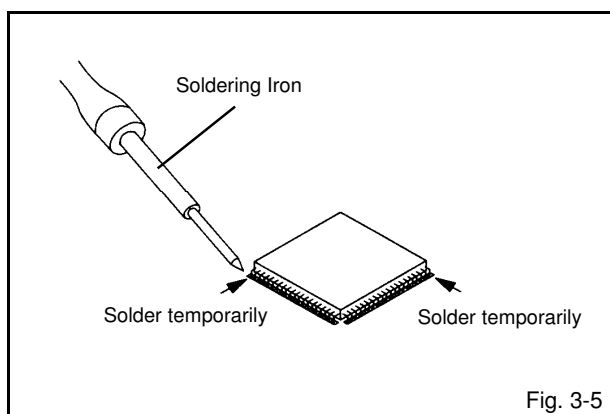
Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.



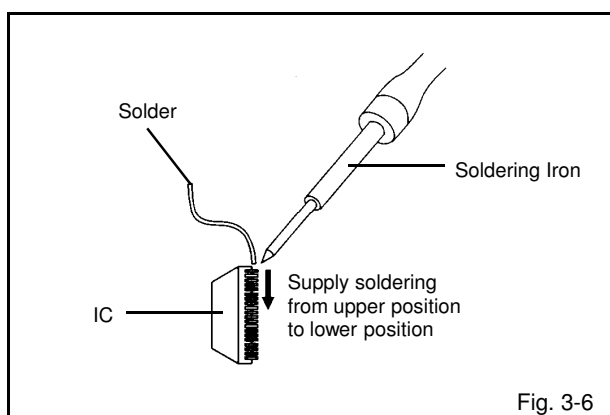
DISASSEMBLY INSTRUCTIONS

INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. (Refer to Fig. 3-5.)



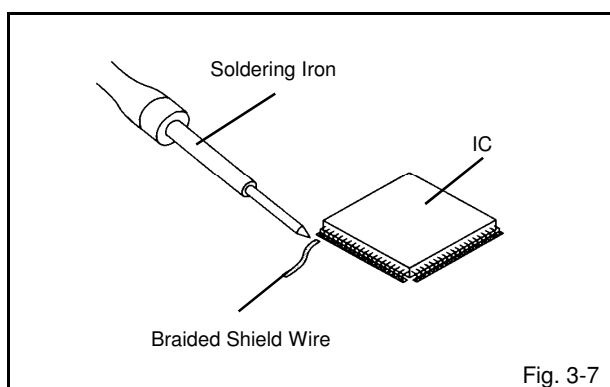
2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. (Refer to Fig. 3-6.)



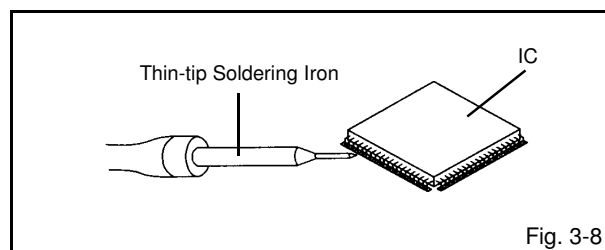
3. Absorb the solder left on the lead using the Braided Shield Wire. (Refer to Fig. 3-7.)

NOTE

Do not absorb the solder to excess.



4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. (Refer to Fig. 3-8.)



5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass. Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

NOTE

When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.

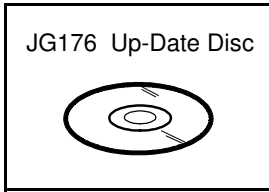
SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than a the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remocon Key	Standard Time	Operations
TV mode	VOL. DOWN (Minimum)	0	2 sec.	Releasing of V-CHIP PASSWORD.
TV mode	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
DVD mode (No disc)	VOL. DOWN (Minimum)	4	2 sec.	Initialization of factory DVD data.
DVD mode (No disc)	VOL. DOWN (Minimum)	5	2 sec.	DVD Write mode. Refer to the "RE-WRITE FOR DVD FIRMWARE".
ALL mode	VOL. DOWN (Minimum)	6	2 sec.	POWER ON total hours are displayed on the screen. Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
TV mode	VOL. DOWN (Minimum)	8	2 sec.	Check of the SUM DATA and MICON VERSION on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
ALL mode	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).
DVD mode (No disc)	STOP	1	2 sec.	Check of the firmware version. Refer to the "RE-WRITE FOR DVD FIRMWARE". NOTE: Do not use this for normal servicing.
DVD mode (No disc)	STOP	7	2 sec.	Releasing of PARENTAL LOCK. Refer to the "PARENTAL CONTROL - RATING LEVEL".

SERVICING FIXTURES AND TOOLS



Ref. No.	Part No.	Parts Name	Parts Name
JG176	APJG176153	Up-Date Disc	Up-Date of the Firmware

RE-WRITE FOR DVD FIRMWARE

1. Turn on the power, and set the DVD mode.
2. Confirm that the "No Disc" will be appeared on the screen.
3. Press both VOL. DOWN button on the set and Channel button **(5)** on the remote control for more than 2 seconds.
4. Press VOL. UP/DOWN button on the unit to check if all the keys on the unit do not function.

NOTE: To check if DVD Write mode is set.

When inserting Up-Date Disc at Non DVD Write mode, the read error will happen.

5. Insert the Up-Date Disc. **(Refer to SERVICING FIXTURE AND TOOLS)**
6. Automatic read will start and "Firmware upgrade Please Wait" will be displayed on the screen.
At this time, the horizontal noise lines may appear. But no problem.

NOTE: Do not turn off the unit on the way or operate the keys on the unit and remocon.

Up-Date error will happen and can not be done with the Up-Date of Up-Date Disc.

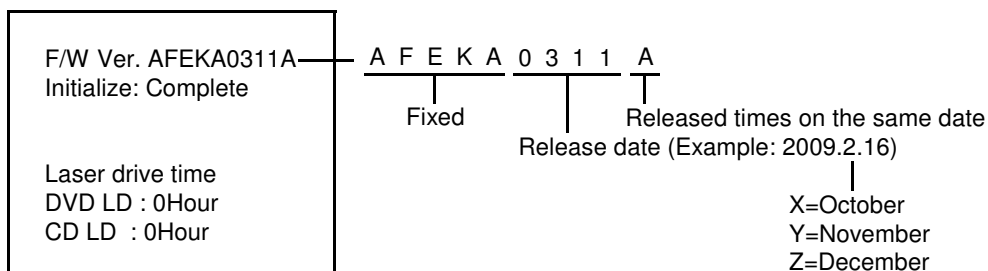
7. After the Up-Date, Logo screen will appear.
8. Unplug the AC cord, then plug it in.

After the write, set to the initializing of shipping.

9. Turn on the power, and set the DVD mode.
10. Press both VOL. DOWN button on the set and Channel button **(4)** on the remote control for more than 2 seconds.
The "INITIALIZE 5 ---> COMPLETE" will appear on the screen.
11. Then unplug the AC cord, and plug it in.

CHECK FOR THE FIRMWARE VERSION

12. Turn on the power, and set the DVD mode.
13. Press both Channel button **(1)** on the remote control and the STOP button on the set for more than 2 seconds.
Firmware version will be displayed on the top left of the screen.



When the changed version displays, the Re-write will be completed.

14. Turn off the power

WHEN REPLACING EEPROM (MEMORY) IC

CONFIRMATION OF CHECK SUM, POWER ON TOTAL HOURS AND MICON VERSION

Initial total of MEMORY IC, POWER ON total hours and MICON VERSION can be checked on the screen. Total hours are displayed in 16 system of notation.

NOTE: If you set a factory initialization, the total hours is reset to "0".

Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.

1. Turn on the POWER, and set to the ALL mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(8)** on the remote control for more than 2 seconds.
4. After the confirmation of each check sum, turn off the power.

NOTE: The each item value might be different according to each set.

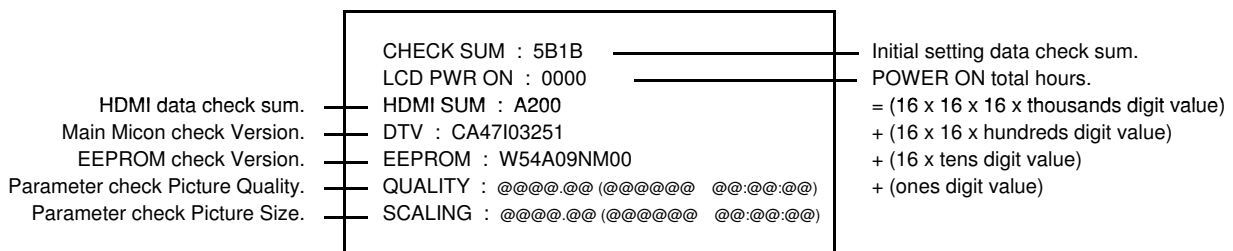


FIG. 1

CONFIRMATION OF INITIAL DATA

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the ALL mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds.
ADDRESS and DATA should appear as FIG 2.

NOTE: No need to set data other position than 0200~0F79.

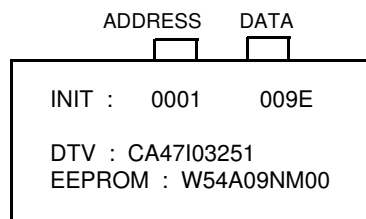


FIG. 2

4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press LEFT/RIGHT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing LEFT/RIGHT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

After the data input, set to the initializing of shipping.

10. Turn on the Power.
11. Set the VOLUME to minimum.
12. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 2 seconds.
13. After the finishing of the initializing of shipping, the unit will turn off automatically.
The unit will now have the correct DATA for the new MEMORY IC.

ELECTRICAL ADJUSTMENTS

1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION

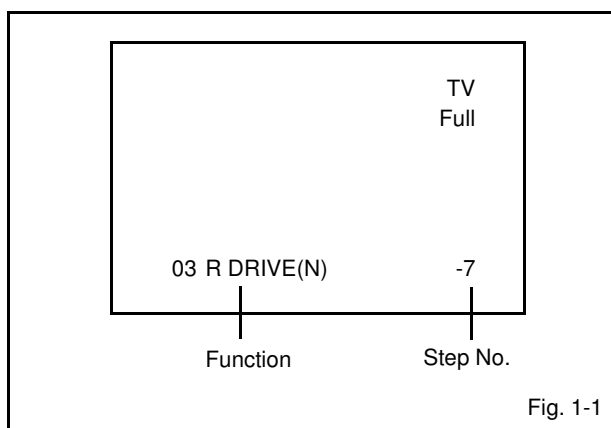
- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease (**YG6260M**) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor).

Prepare the following measurement tools for electrical adjustments.

1. Pattern Generator

On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button (**9**) on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in **Fig. 1-1**.



3. Use the UP/DOWN button or Channel button (**0-9**) on the remote control to select the options shown in **Fig. 1-2**.
4. Press the SETUP/TV MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for TV, AV, COMPONENT, HDMI, PC and DVD mode, press the INPUT SELECT button on the remote control.
6. Receive the DIGITAL broadcasting.
7. To display the adjustment screen for DTV mode, select the digital channel.
8. Press the VOL.DOWN button on the set and the channel (**9**) on the remote control for more than 2 seconds.

NO. FUNCTION	NO. FUNCTION
03 R DRIVE (N)	35 TINT
04 R CUTOFF (N)	36 SHARP H1 MAX
05 G DRIVE (N)	37 SHARP H1 MIN
06 G CUTOFF (N)	38 SHARP H2 MAX
07 B DRIVE (N)	39 SHARP H2 MIN
08 B CUTOFF (N)	40 SHARP H3 MAX
09 R DRIVE (C)	41 SHARP H3 MIN
10 R CUTOFF (C)	42 SHARP H4 MAX
11 G DRIVE (C)	43 SHARP H4 MIN
12 G CUTOFF (C)	44 SHARP H5 MAX
13 B DRIVE (C)	45 SHARP H5 MIN
14 B CUTOFF (C)	46 SHARP V1 MAX
15 R DRIVE (W)	47 SHARP V1 MIN
16 R CUTOFF (W)	48 SHARP V2 MAX
17 G DRIVE (W)	49 SHARP V2 MIN
18 G CUTOFF (W)	50 CONTRAST CENTER
19 B DRIVE (W)	51 CONTRAST MAX
20 B CUTOFF (W)	52 CONTRAST MIN
29 BAK LIGHT CENT	53 COLOR CENTER
30 BAK LIGHT MAX	54 COLOR MAX
31 BAK LIGHT MIN	55 COLOR MIN
32 BRIGHTNESS CENT	58 CONTRAST 40
33 BRIGHTNESS MAX	
34 BRIGHTNESS MIN	

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Press the INPUT SELECT button on the remote control to set to the AV mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**03**) on the remote control to select "R DRIVE (N)".
6. Press the UP/DOWN button on the remote control to select the "R CUTOFF (N)", "B DRIVE (N)", "B CUTOFF (N)", "R DRIVE (C)", "R CUTOFF (C)", "B DRIVE (C)", "B CUTOFF (C)", "R DRIVE (W)", "R CUTOFF (W)", "B DRIVE (W)" or "B CUTOFF (W)".
7. Adjust the LEFT/RIGHT button on the remote control to whiten the R DRIVE (N), R CUTOFF (N), B DRIVE (N), B CUTOFF (N), R DRIVE (C), R CUTOFF (C), B DRIVE (C), B CUTOFF (C), R DRIVE (W), R CUTOFF (W), B DRIVE (W) and B CUTOFF (W) at each step tone sections equally.
8. Perform the above adjustments 6 and 7 until the white color is achieved.

ELECTRICAL ADJUSTMENTS

2-2: BRIGHTNESS CENT

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "130".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "130".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Playback the DVD(480i) disc. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
20. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "125".
21. Check if the picture is normal.
22. Playback the DVD(480i) disc. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
26. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "127".
27. Check if the picture is normal.
28. Playback the DVD(480i) disc.
29. Press the INPUT SELECT button on the remote control to set to the DVD mode.
30. Using the remote control, set the brightness and contrast to normal position.
31. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
32. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "128".
33. Check if the picture is normal.

2-3: CONTRAST MAX

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "172".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "146".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Playback the DVD(480i) disc. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
20. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "148".
21. Check if the picture is normal.
22. Playback the DVD(480i) disc. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
26. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "138".
27. Check if the picture is normal.
28. Playback the DVD(480i) disc.
29. Press the INPUT SELECT button on the remote control to set to the DVD mode.
30. Using the remote control, set the brightness and contrast to normal position.
31. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
32. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "136".
33. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

2-4: CONTRAST CENTER

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "122".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "104".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Playback the DVD(480i) disc. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
20. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "106".
21. Check if the picture is normal.
22. Playback the DVD(480i) disc. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
26. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "97".
27. Check if the picture is normal.
28. Playback the DVD(480i) disc.
29. Press the INPUT SELECT button on the remote control to set to the DVD mode.
30. Using the remote control, set the brightness and contrast to normal position.
31. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(50)** on the remote control to select "CONTRAST CENTER".
32. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "96".
33. Check if the picture is normal.

2-5: CONTRAST 40

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "163".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "140".
12. Check if the picture is normal.
13. Receive the color bar pattern. (S-VIDEO Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(Y/C) mode. Then perform the above adjustments 10~12.
16. Playback the DVD(480i) disc. (COMPONENT Input)
17. Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
19. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
20. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "140".
21. Check if the picture is normal.
22. Playback the DVD(480i) disc. (HDMI Input)
23. Using the remote control, set the brightness and contrast to normal position.
24. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
25. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
26. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "129".
27. Check if the picture is normal.
28. Playback the DVD(480i) disc.
29. Press the INPUT SELECT button on the remote control to set to the DVD mode.
30. Using the remote control, set the brightness and contrast to normal position.
31. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(58)** on the remote control to select "CONTRAST 40".
32. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "128".
33. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

2-6: Confirmation of Fixed Value (Step No.)

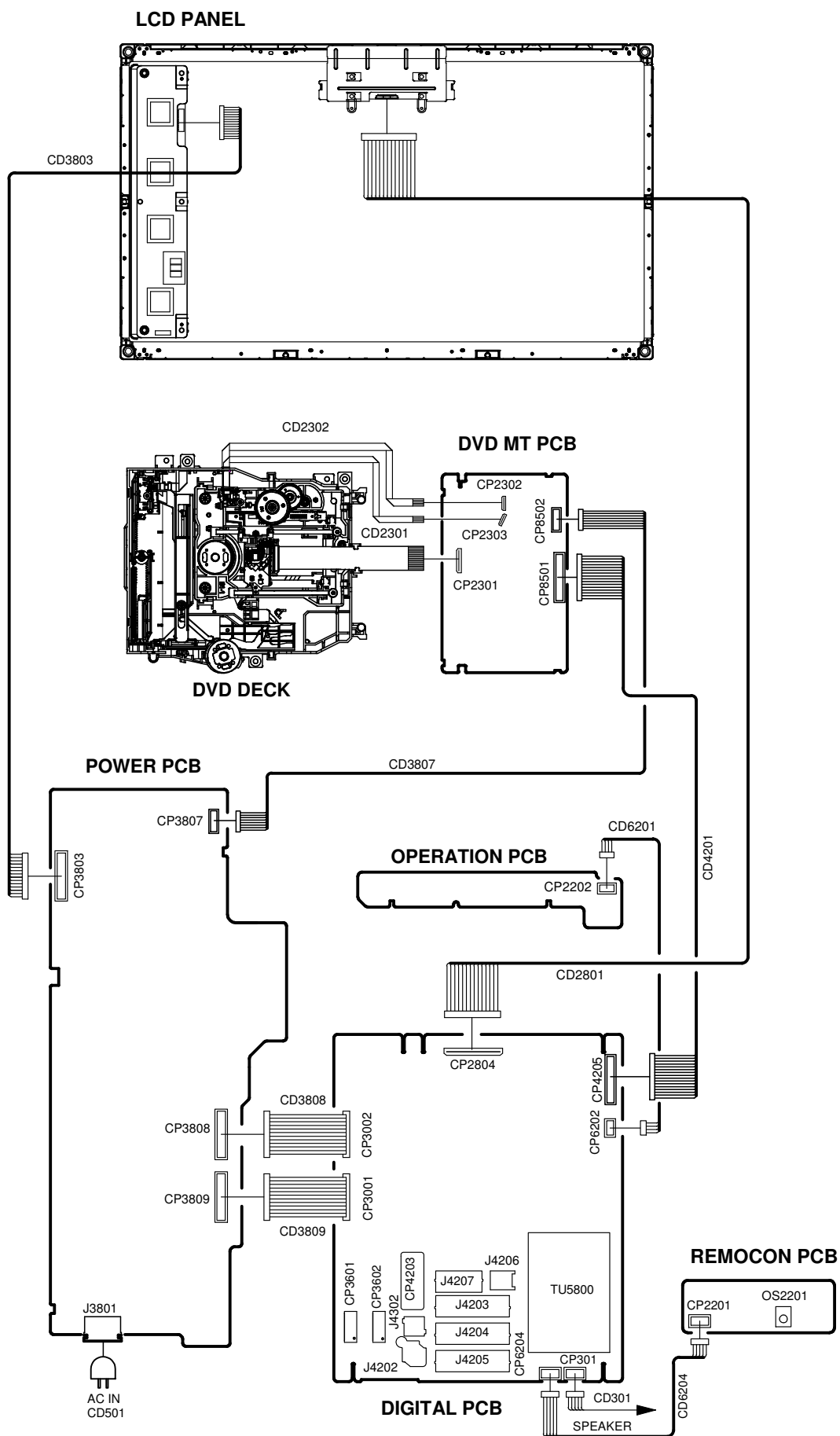
Please check if the fixed values of each of the adjustment item is set correctly referring below. (TV/AV/COMPONENT/HDMI/PC/DVD/DTV)

NO.	FUNCTION	TV	AV		COMPONENT				HDMI						DVI--->HDMI		PC								DVD	DTV				
			CVBS	Y/C	480i	480p	720p	1080i	VGA	480i	480p	720p	1080i	1080p	VGA	XGA	640×480	720×400	800×600	1024×768	1280×768	1280×720	1360×768	480i		480p	720p	1080i	1080P	
		Step No.	Step No.	Step No.				Step No.						Step No.		Step No.								Step No.	Step No.					
03	R.DRIVE (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
04	R CUTOFF (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
05	G DRIVE (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06	G CUTOFF (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07	B DRIVE (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
08	B CUTOFF (N)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
09	R.DRIVE (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
10	R CUTOFF (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
11	G DRIVE (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12	G CUTOFF (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13	B DRIVE (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
14	B CUTOFF (C)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
15	R.DRIVE (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
16	R CUTOFF (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
17	G DRIVE (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18	G CUTOFF (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19	B DRIVE (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
20	B CUTOFF (W)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
29	BAK LIGHT CENT	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61		
30	BAK LIGHT MAX	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
31	BAK LIGHT MIN	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22		
32	BRIGHTNESS CENT	122	122	122	117	120	120	120	119	119	119	119	119	119	120	120	119	119	119	119	119	119	119	120	115	115	115	115	123	
33	BRIGHTNESS MAX	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200		
34	BRIGHTNESS MIN	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
35	TINT	41	41	41	41	41	41	41	41	41	41	41	41	41	50	50	50	50	50	50	50	50	50	50	41	41	41	41	41	
36	SHARP H1 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
37	SHARP H1 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
38	SHARP H2 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
39	SHARP H2 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
40	SHARP H3 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
41	SHARP H3 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
42	SHARP H4 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
43	SHARP H4 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
44	SHARP H5 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
45	SHARP H5 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
46	SHARP V1 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
47	SHARP V1 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
48	SHARP V2 MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
49	SHARP V2 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
50	CONTRAST CENTER	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
51	CONTRAST MAX	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
52	CONTRAST MIN	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60		
53	COLOR CENTER	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
54	COLOR MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255		
55	COLOR MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
58	CONTRAST 40	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		

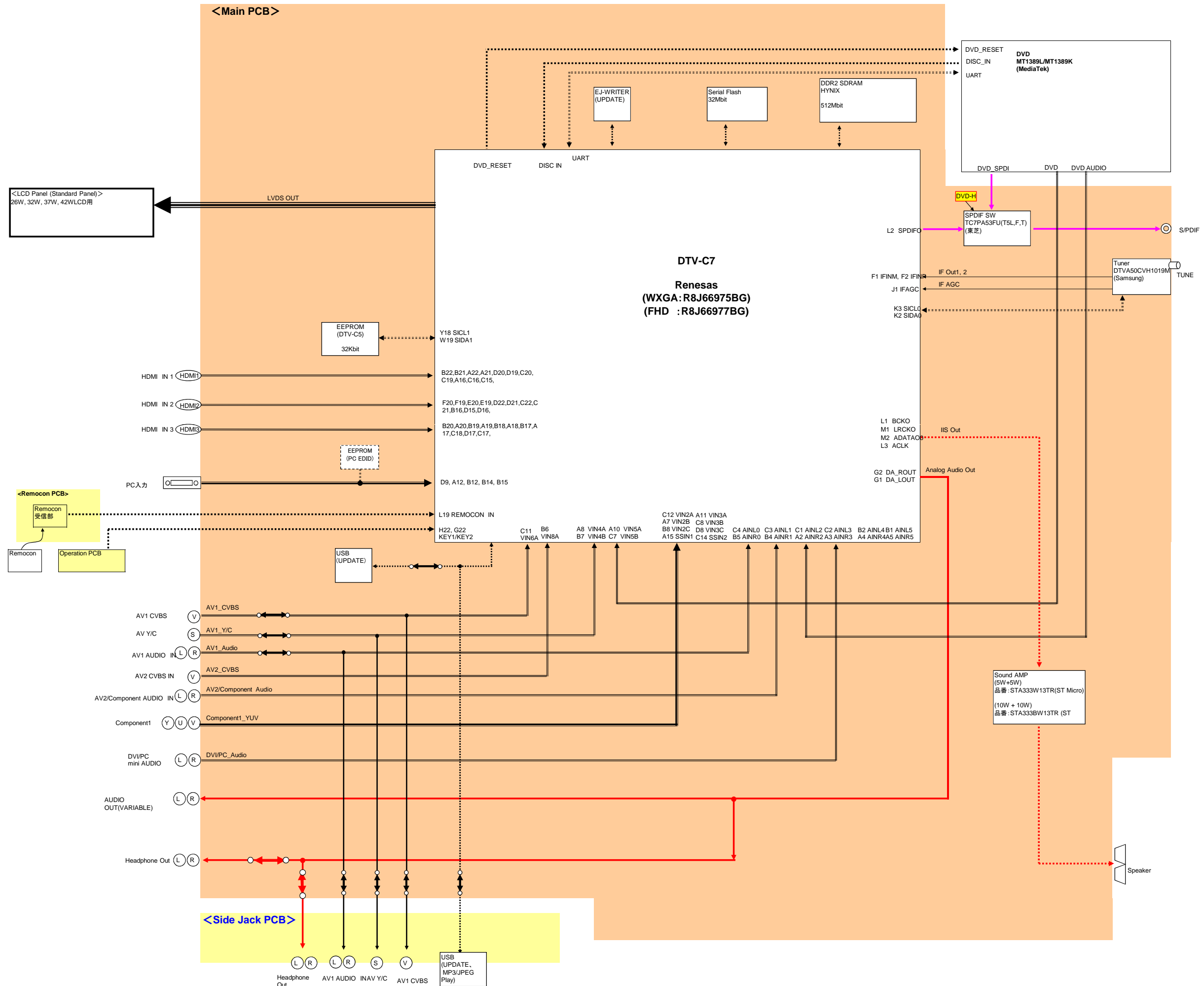
NOTE: For the step no. with * mark, please adjust it according to the situation of the set.

ELECTRICAL ADJUSTMENTS

3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)

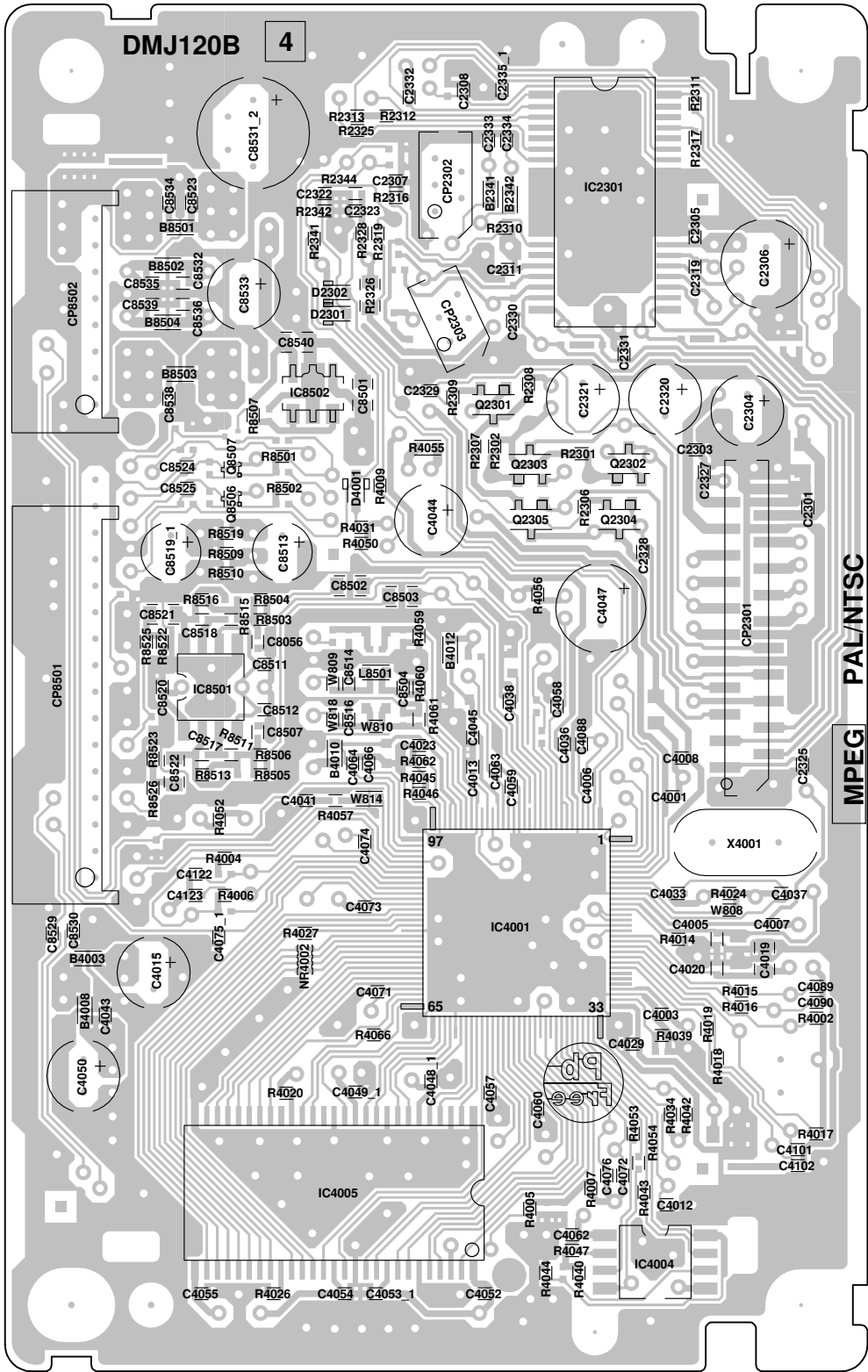


BLOCK DIAGRAM

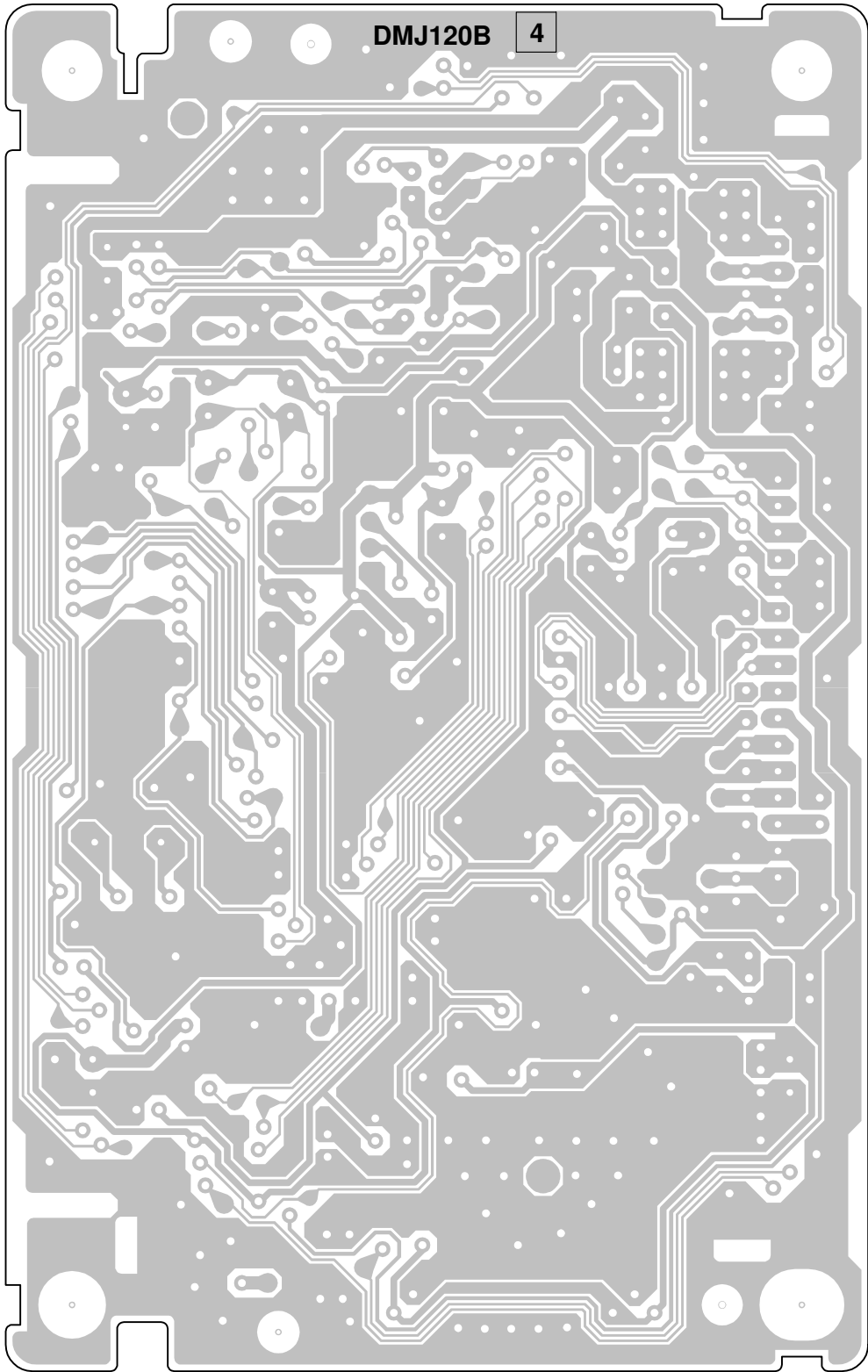


PRINTED CIRCUIT BOARDS

DVD MT (TOP SIDE)



DVD MT (BOTTOM SIDE)

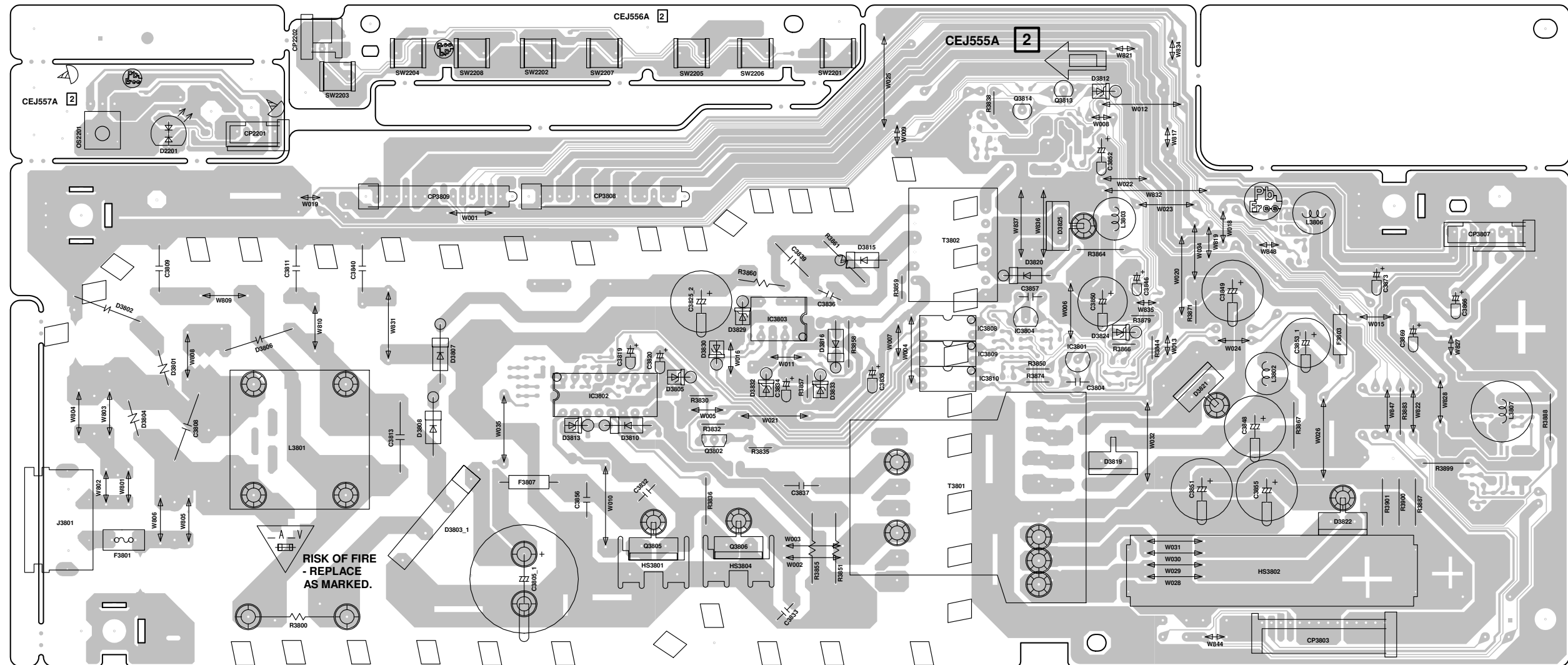


DIGITAL (TOP SIDE)

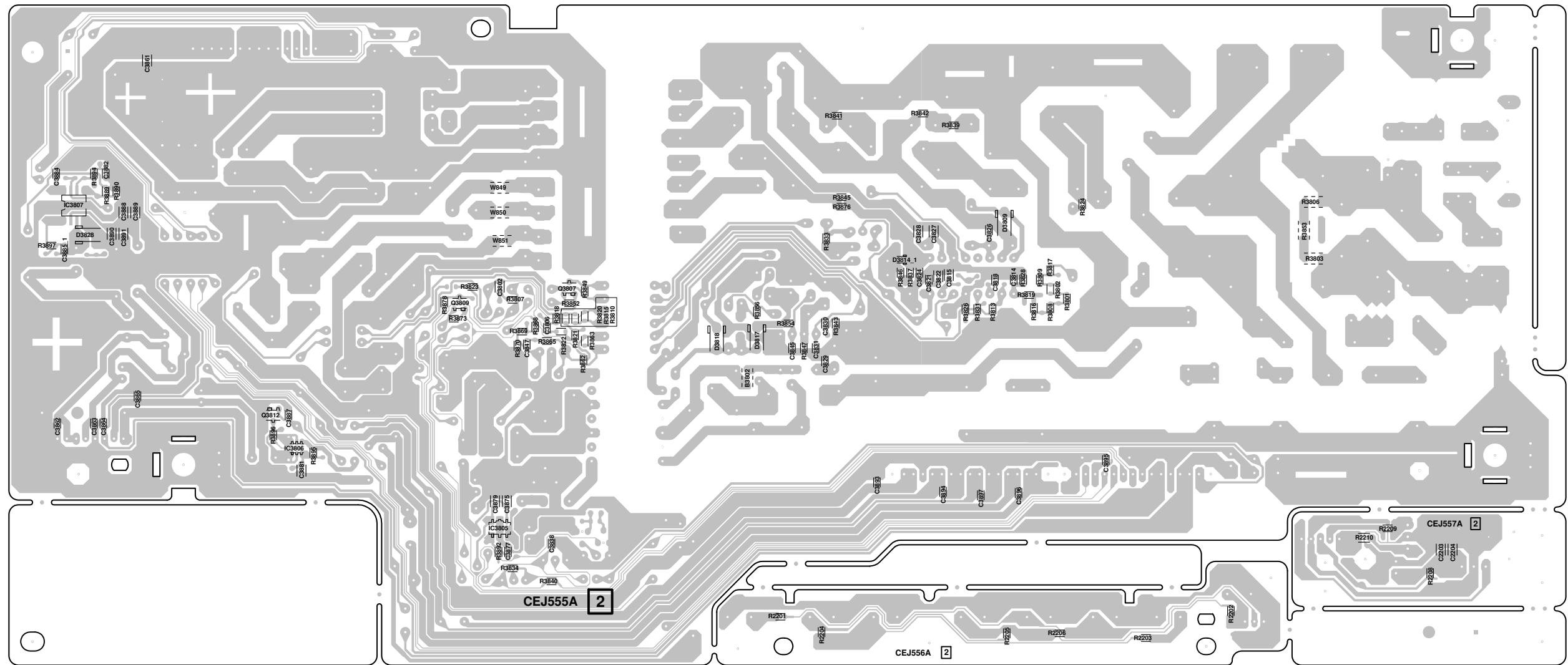


F-4

**PRINTED CIRCUIT BOARDS
POWER/OPERATION/REMOCON (INSERTED PARTS)
SOLDER SIDE**

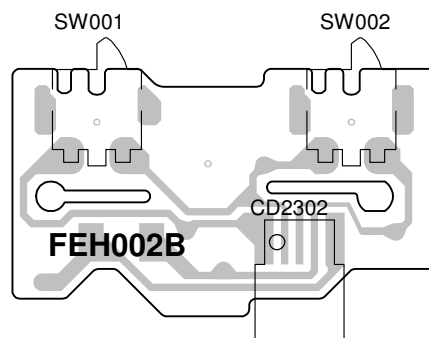


**PRINTED CIRCUIT BOARDS
POWER/OPERATION/REMOCON (CHIP MOUNTED PARTS)
SOLDER SIDE**

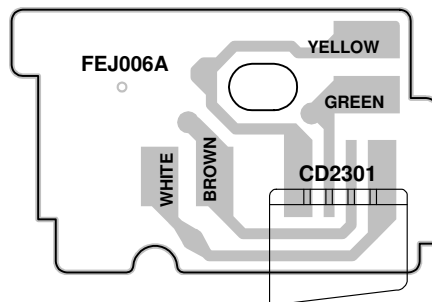


PRINTED CIRCUIT BOARDS

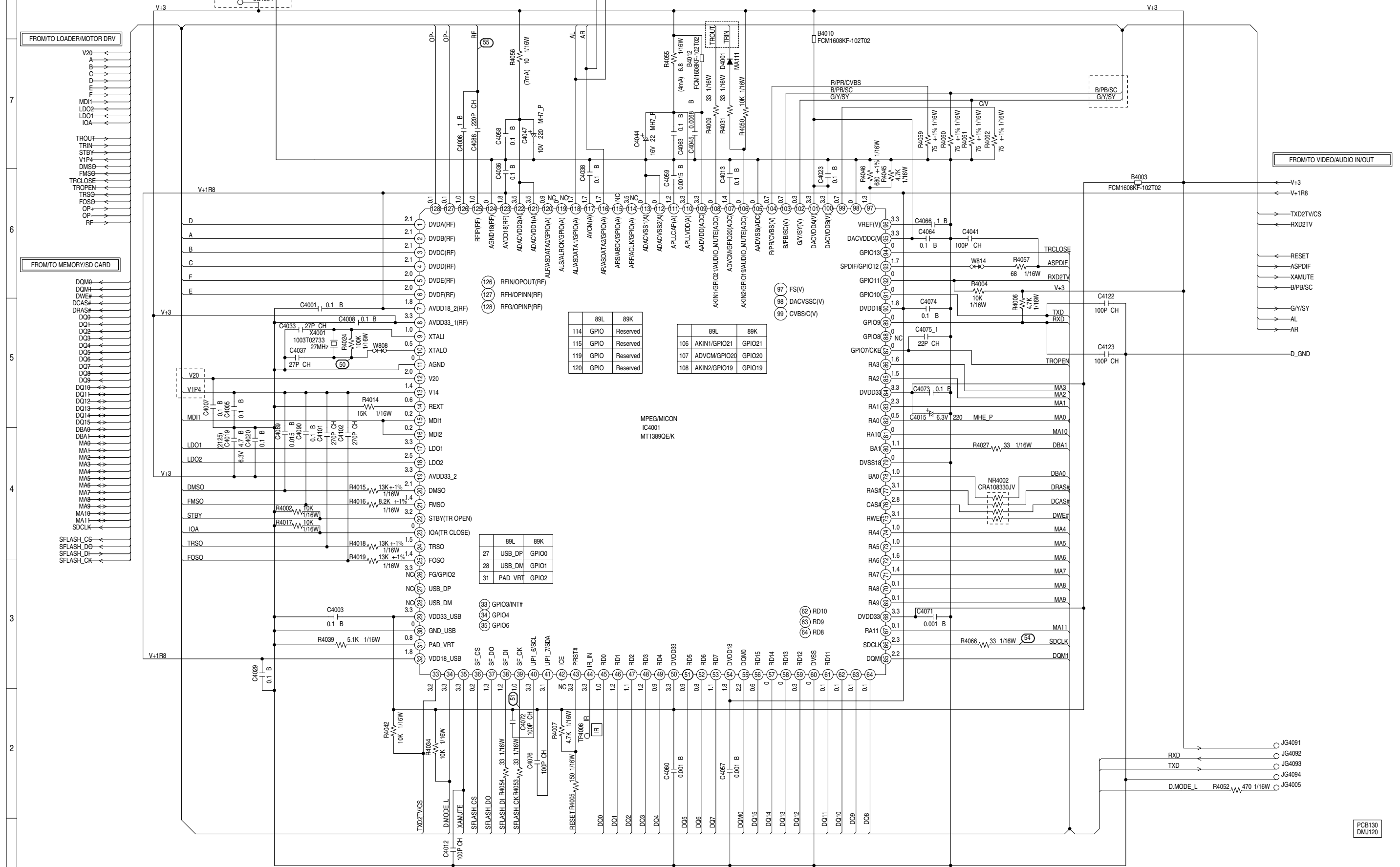
LOADING MOTOR SOLDER SIDE



PCB SOLDER SIDE



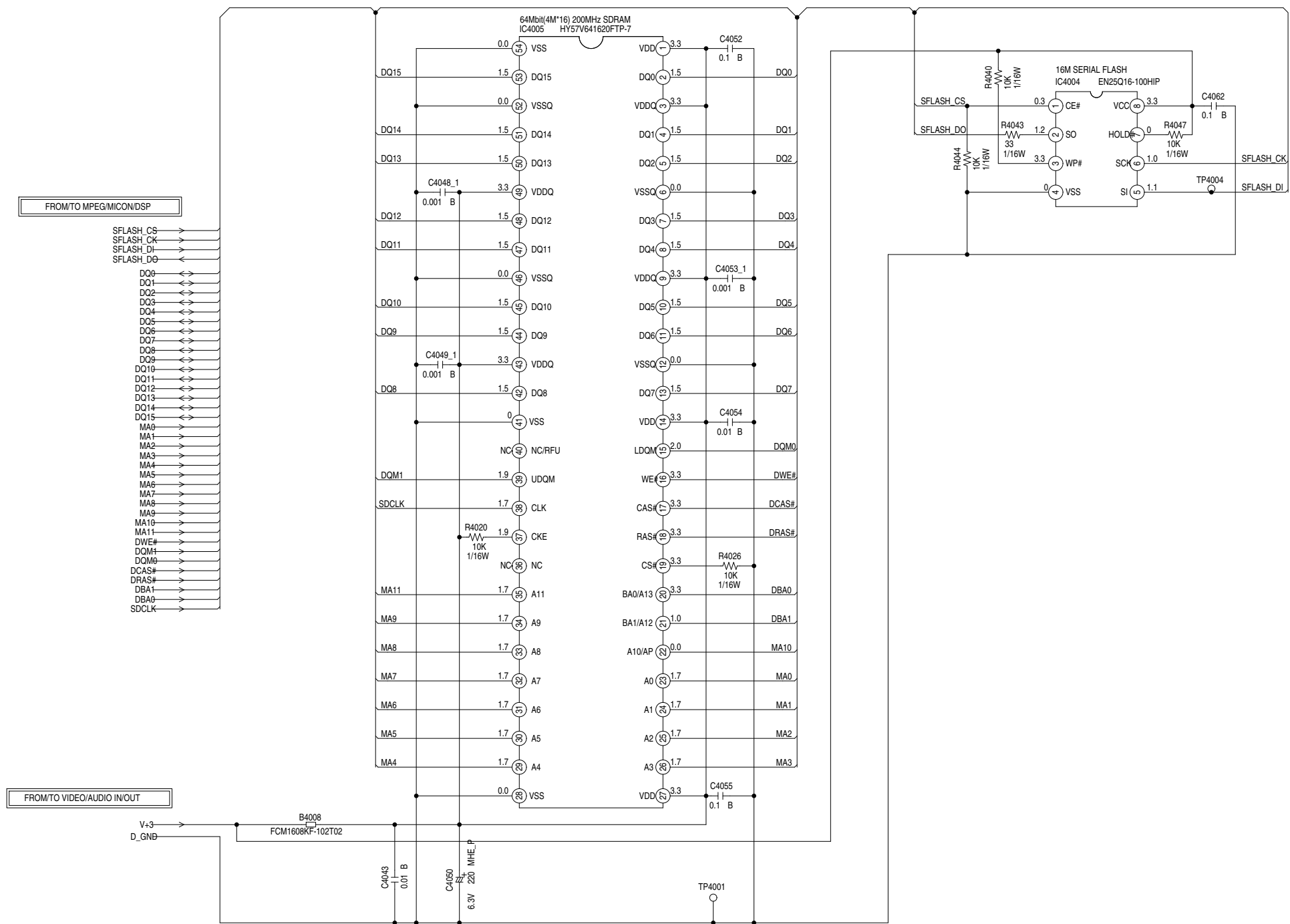
(DVD PCB)



NOTE:THE DC VOLTAGE EACH PART WAS
MEASURED WITH THE DIGITAL TESTER
DURING PLAYBACK.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

MEMORY/SD CARD SCHEMATIC DIAGRAM
(DVD PCB)

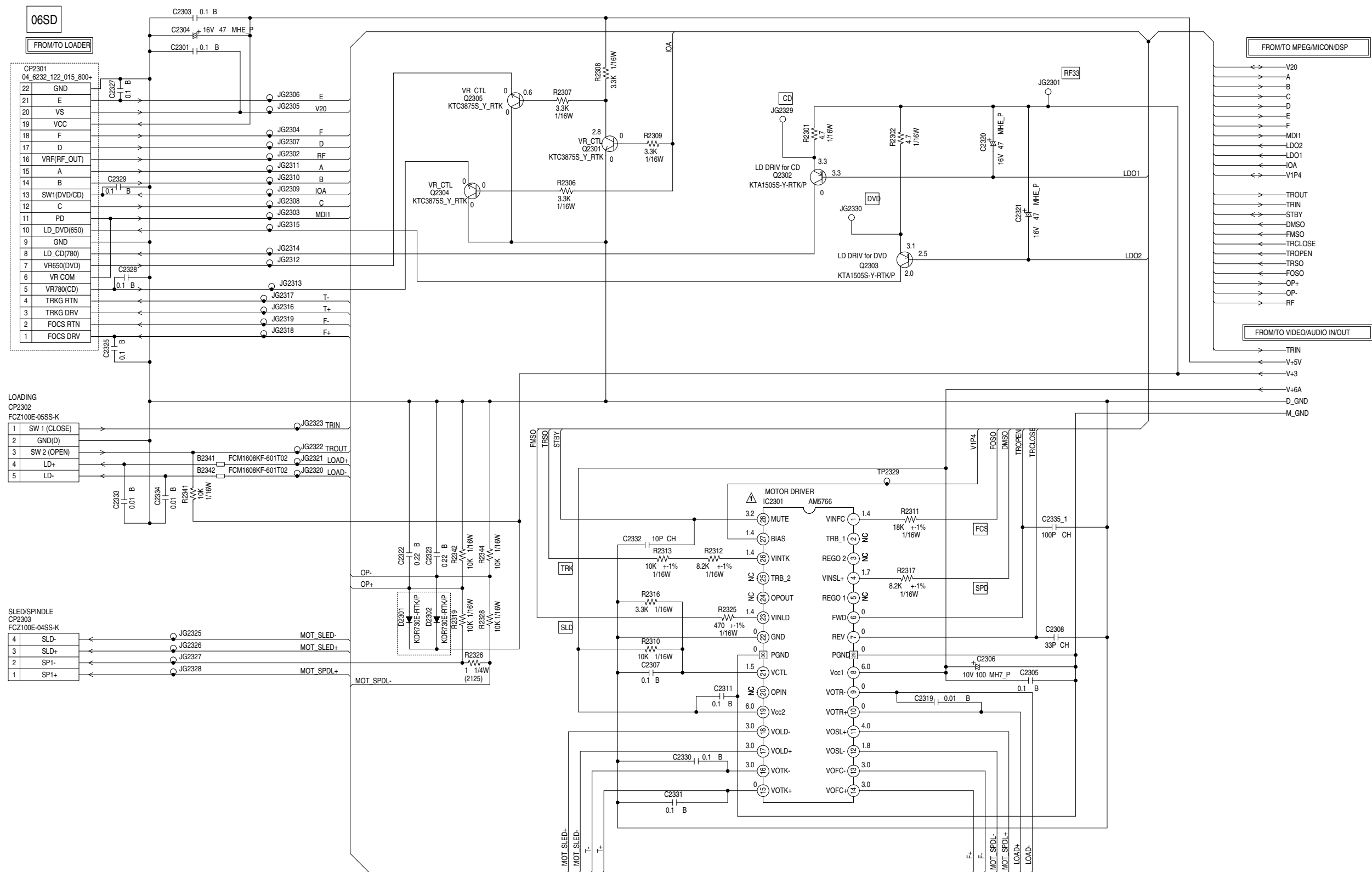



NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE EACH PART WAS
MEASURED WITH THE DIGITAL TESTER
DURING PLAYBACK.

PCB130
DMJ120

LOADER/MOTOR DRV SCHEMATIC DIAGRAM (DVD PCB)



ATTENTION LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

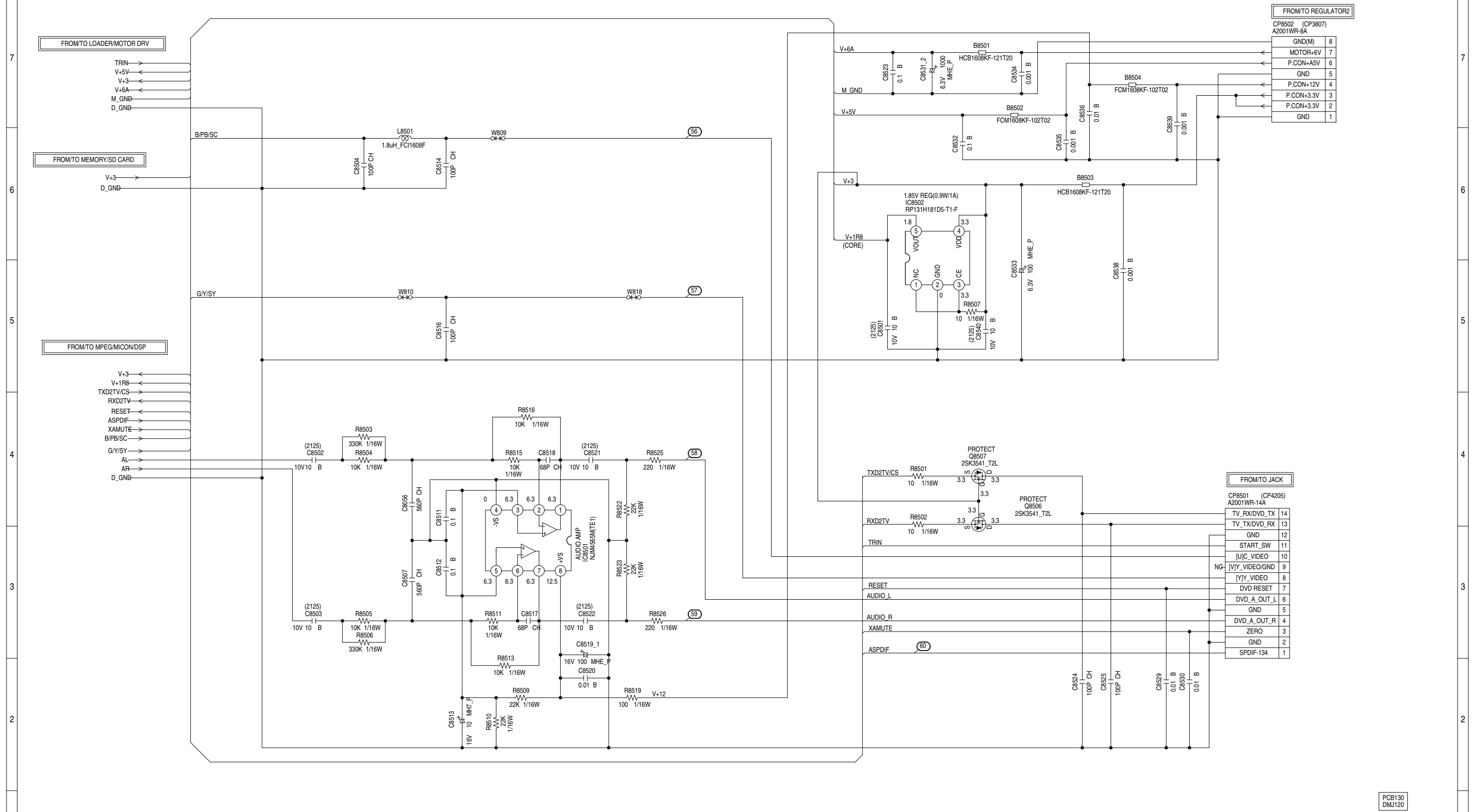
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

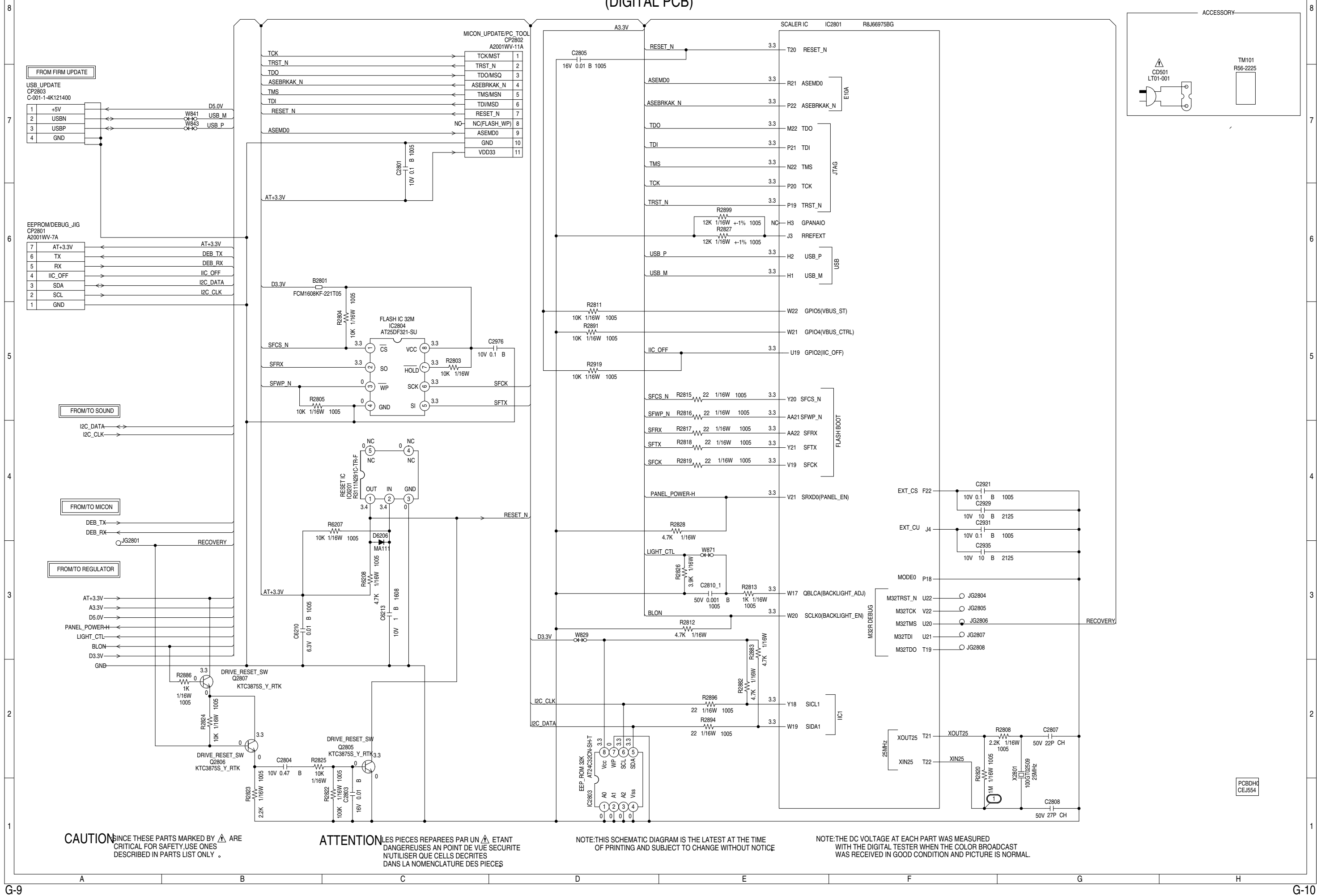
NOTE:THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

PCB130
DMJ120

VIDEO/AUDIO IN/OUT SCHEMATIC DIAGRAM
(DVD PCB)



FLASH SCHEMATIC DIAGRAM (DIGITAL PCB)



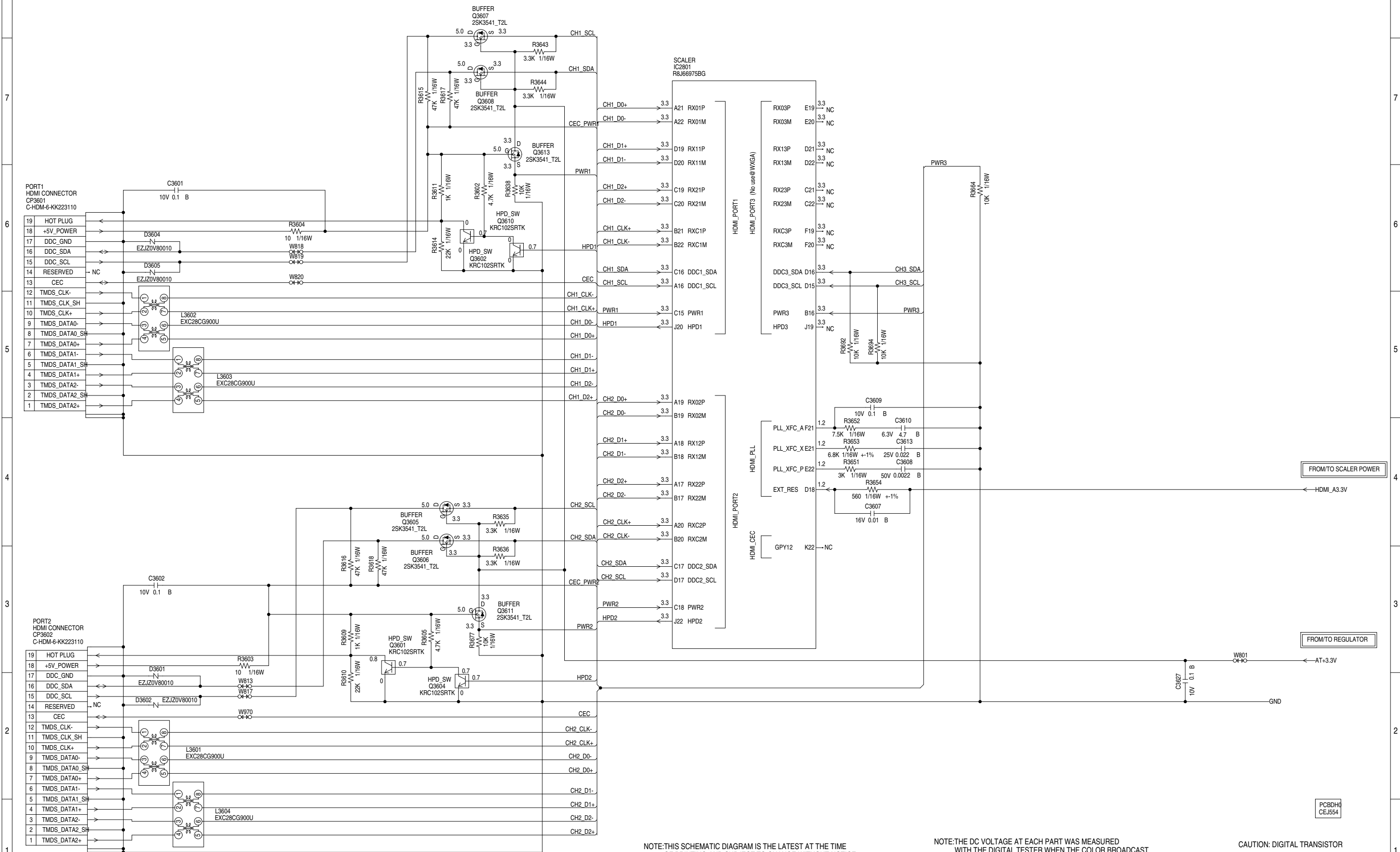
DDR SCHEMATIC DIAGRAM (DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

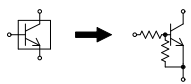
HDMI SCHEMATIC DIAGRAM
(DIGITAL PCB)



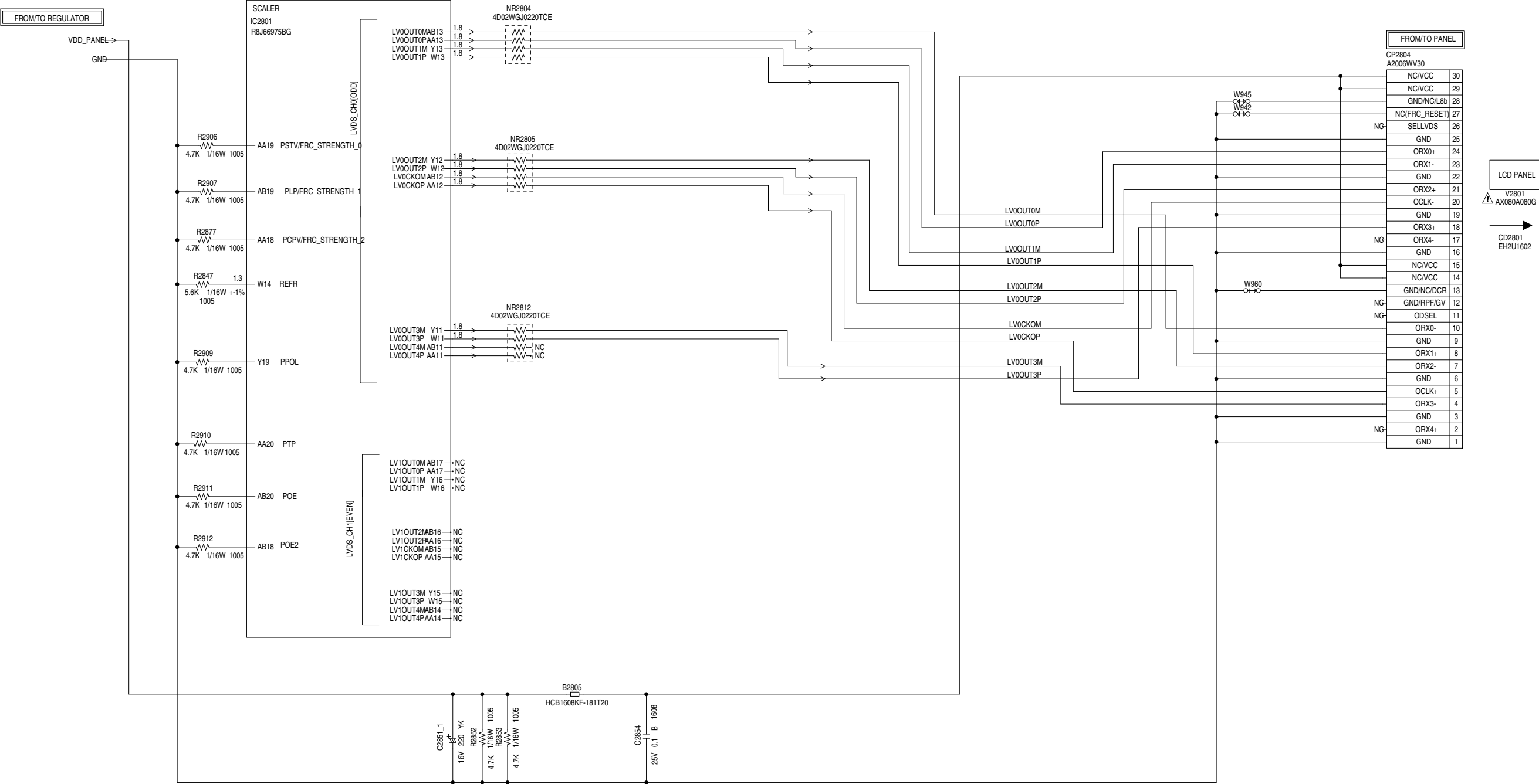
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR



LVDS SCHEMATIC DIAGRAM
(DIGITAL PCB)



NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION LES PIÈCES RÉPARÉES PAR UN ÉTANT
DANGEREUSES AU POINT DE VUE SÉCURITÉ
N'UTILISER QUE CELLES DÉCRITES
DANS LA NOMENCLATURE DES PIÈCES

CAUTION SINCE THESE PARTS MARKED BY ARE
CRITICAL FOR SAFETY, USE ONES
DESCRIBED IN PARTS LIST ONLY .

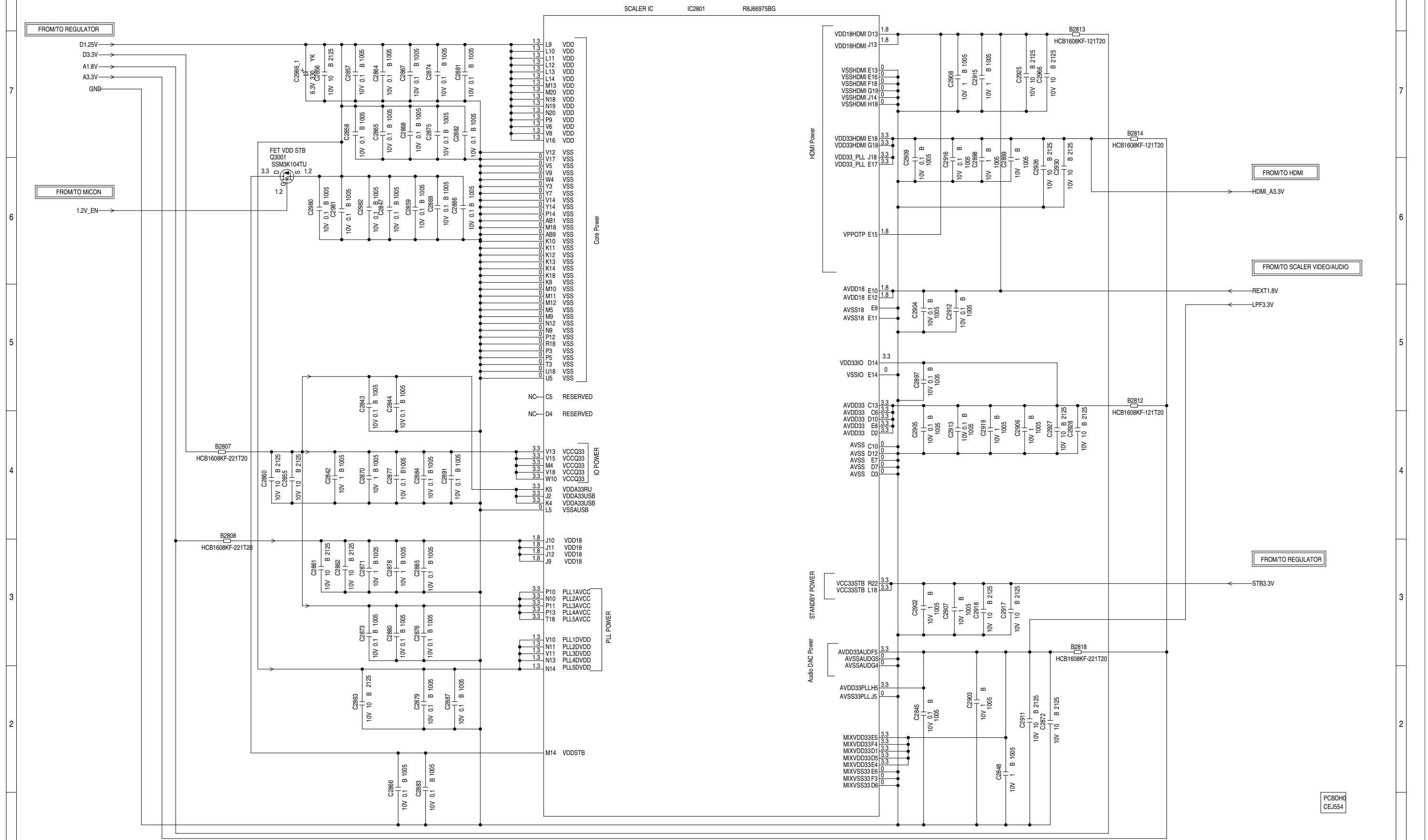
PCBDH0
CEJ554

SCALER
IC2801
R8J66975BG



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

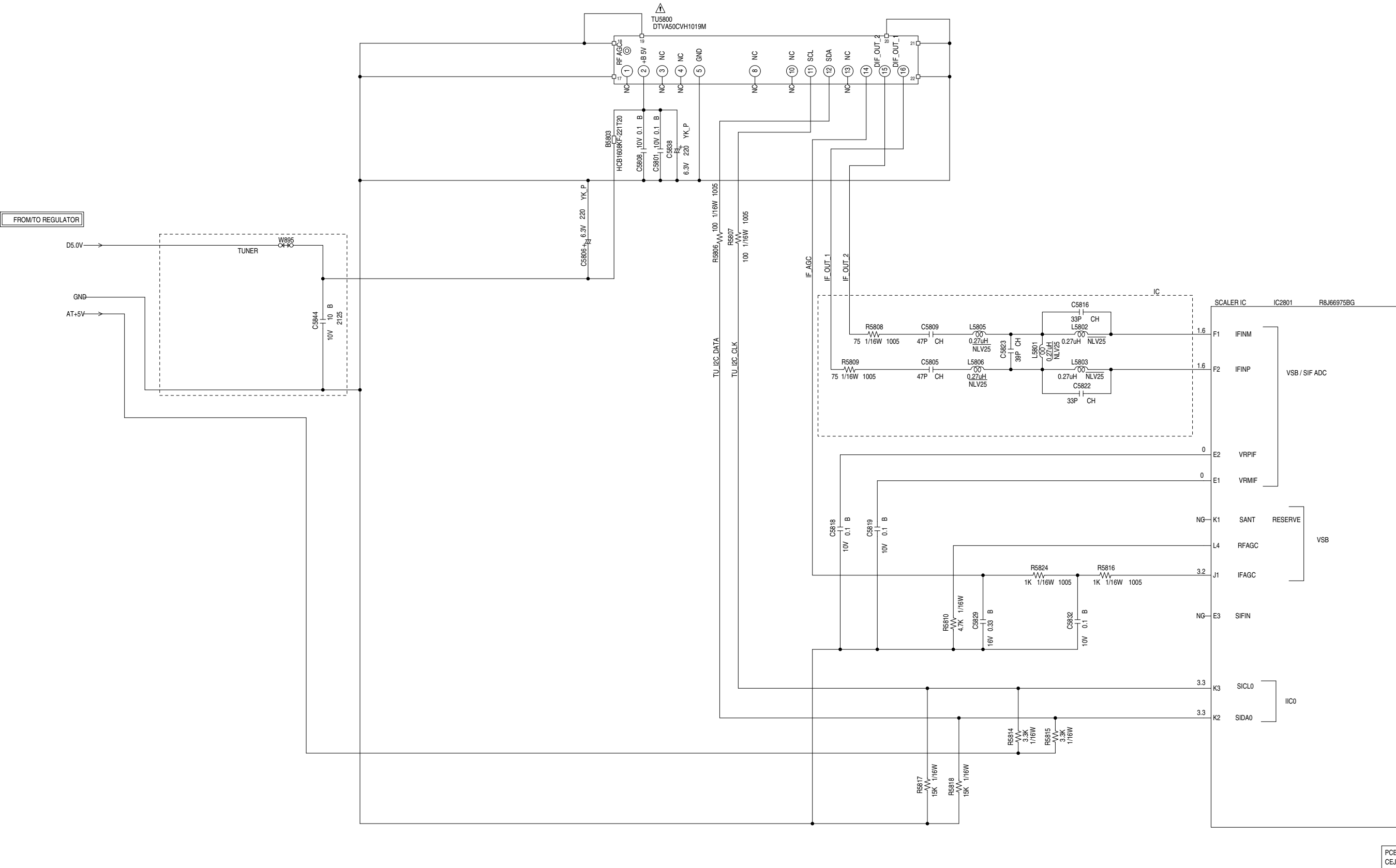
SCALER POWER SCHEMATIC DIAGRAM (DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.


NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.


TUNER SCHEMATIC DIAGRAM
(DIGITAL PCB)



NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

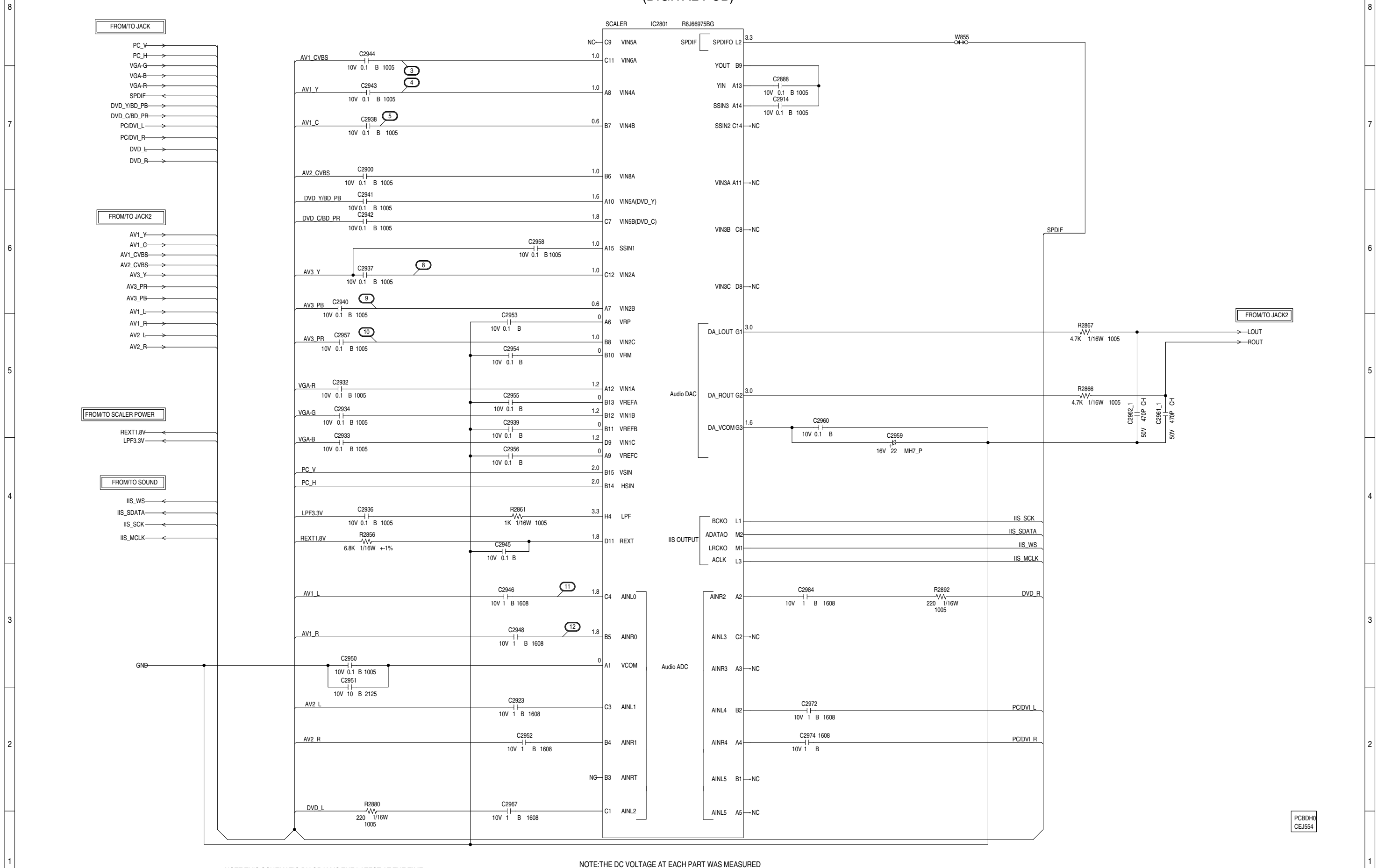
NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION LES PIECES REPARÉES PAR UN  ETANT
DANGEREUSES AN POINT DE VUE SECURITE
NUTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES

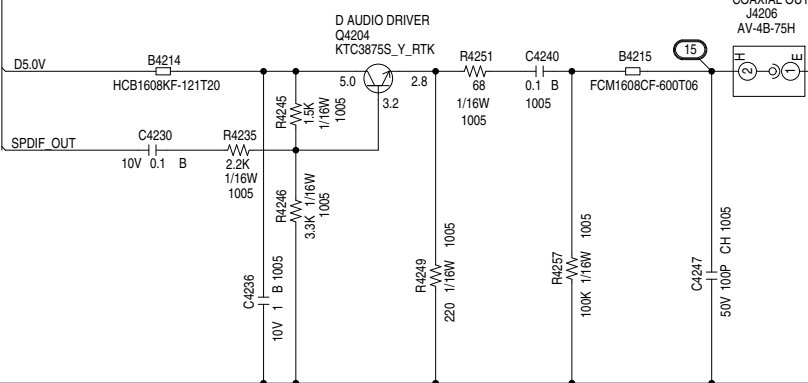
CAUTION SINCE THESE PARTS MARKED BY  ARE
CRITICAL FOR SAFETY,USE ONES
DESCRIBED IN PARTS LIST ONLY .

PCBDH0
CEJ554

SCALER VIDEO/AUDIO SCHEMATIC DIAGRAM
(DIGITAL PCB)



(DIGITAL PCB)

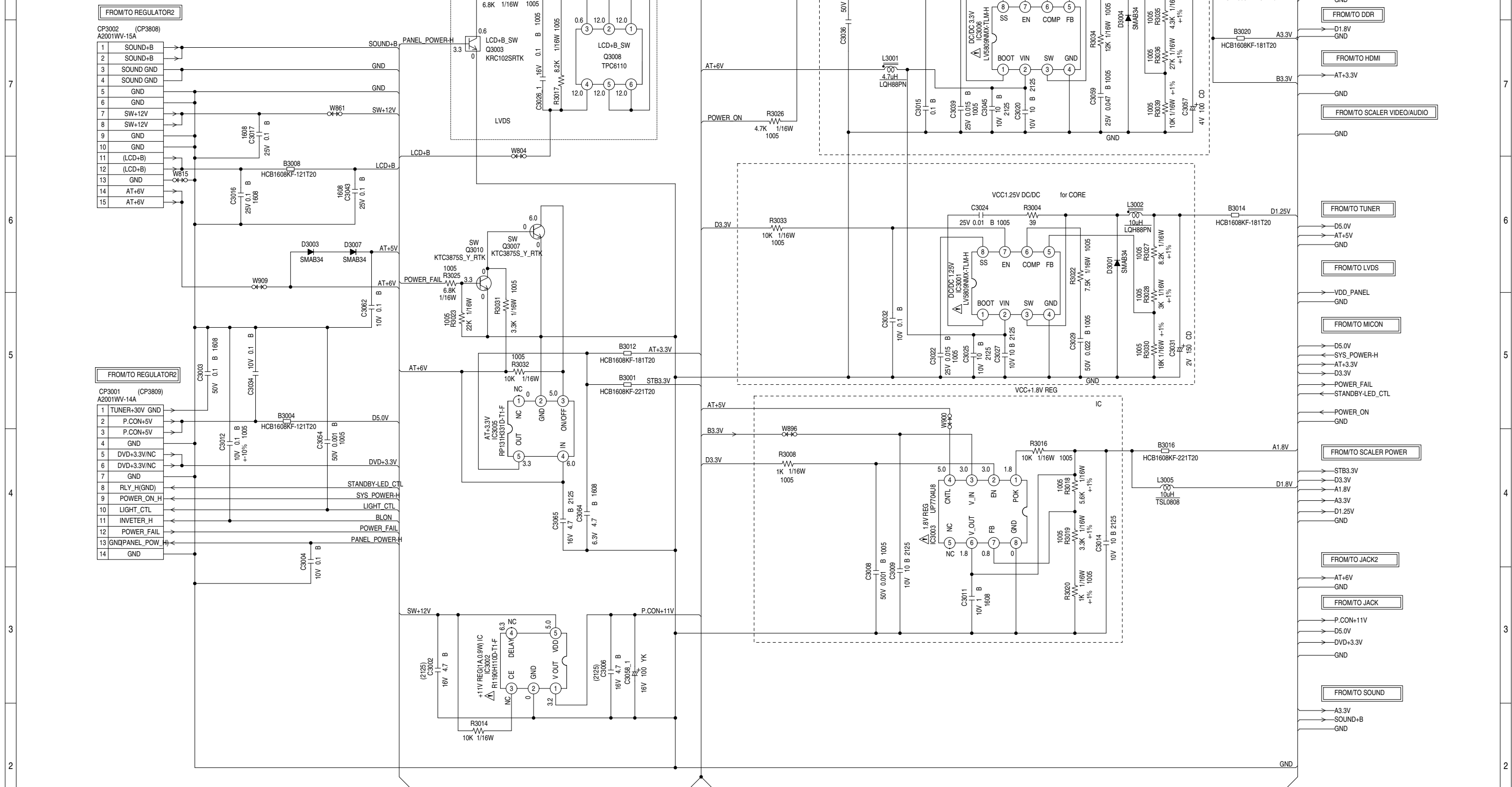


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL

PCBDH0
CEJ554

REGULATOR SCHEMATIC DIAGRAM (DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

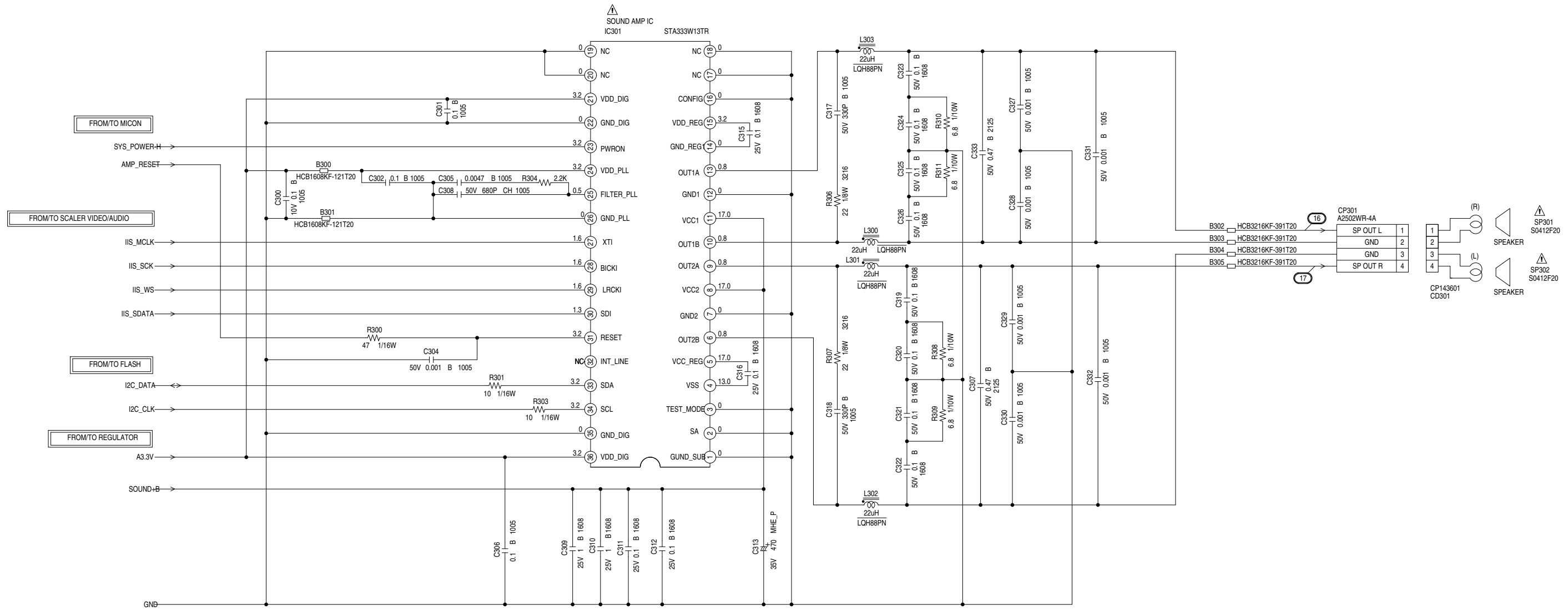
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

CAUTION: DIGITAL TRANSISTOR

SOUND SCHEMATIC DIAGRAM
(DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

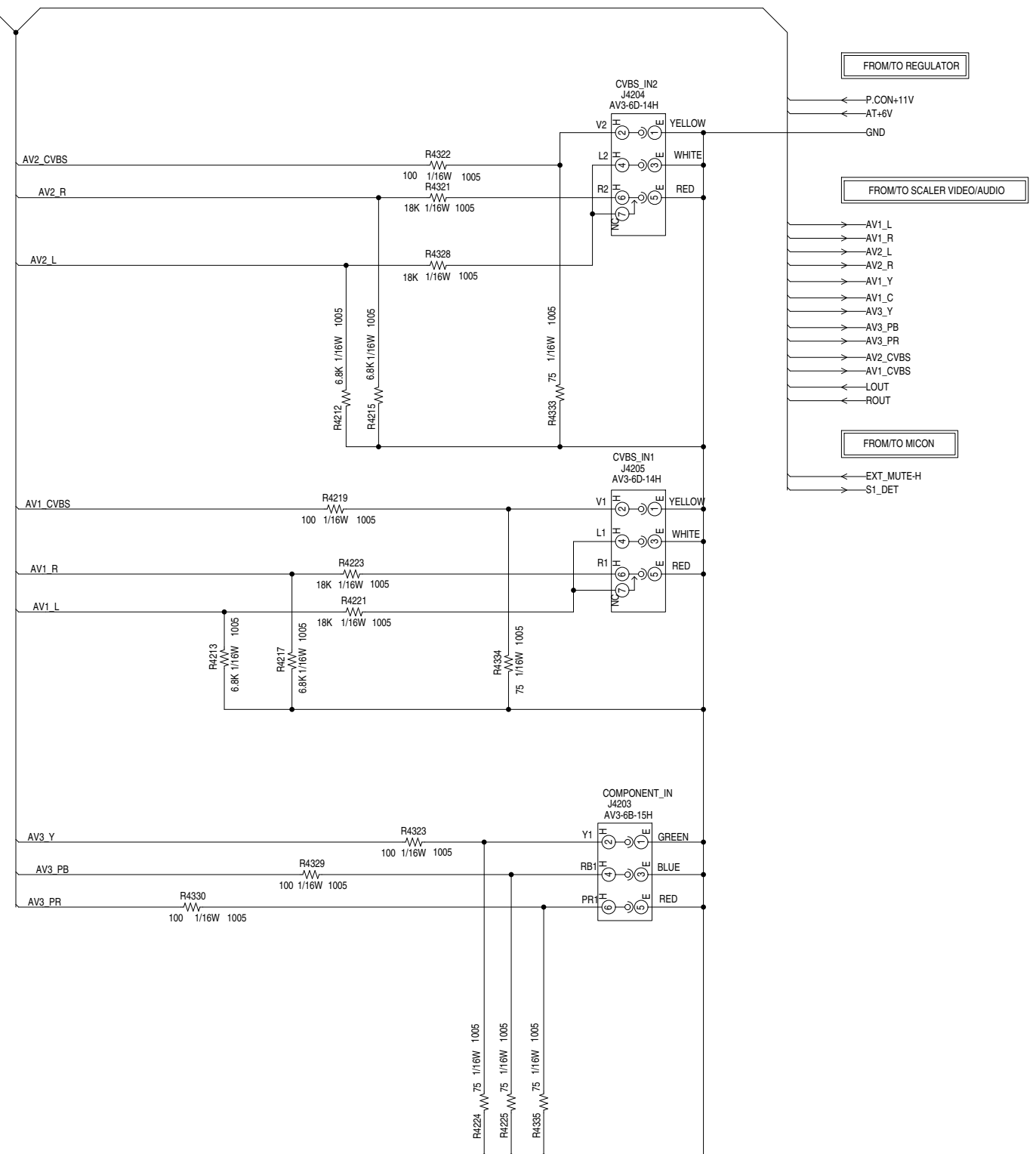
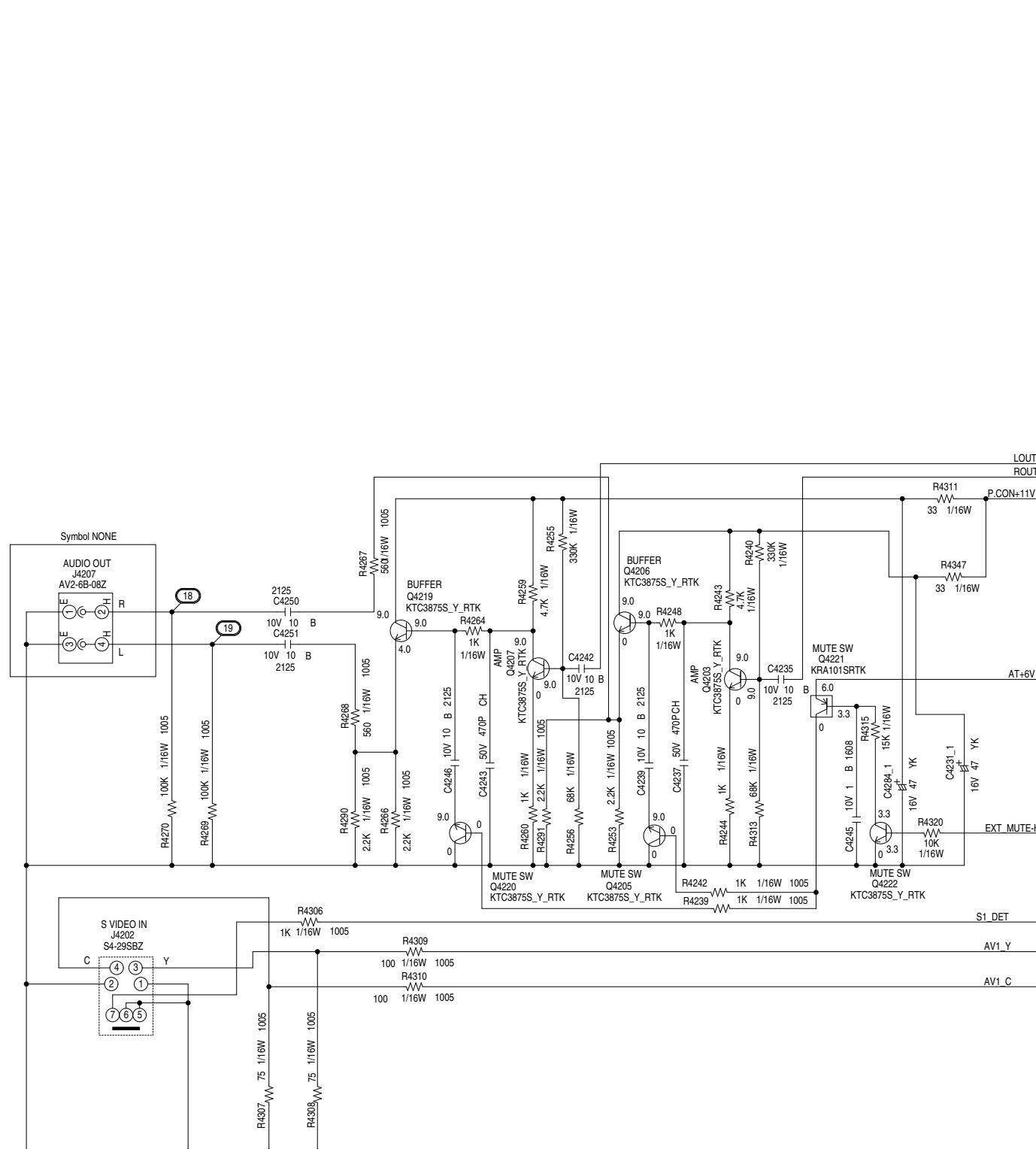
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

PCBDH0
CEJ554

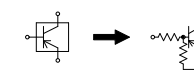
JACK2 SCHEMATIC DIAGRAM (DIGITAL PCB)



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

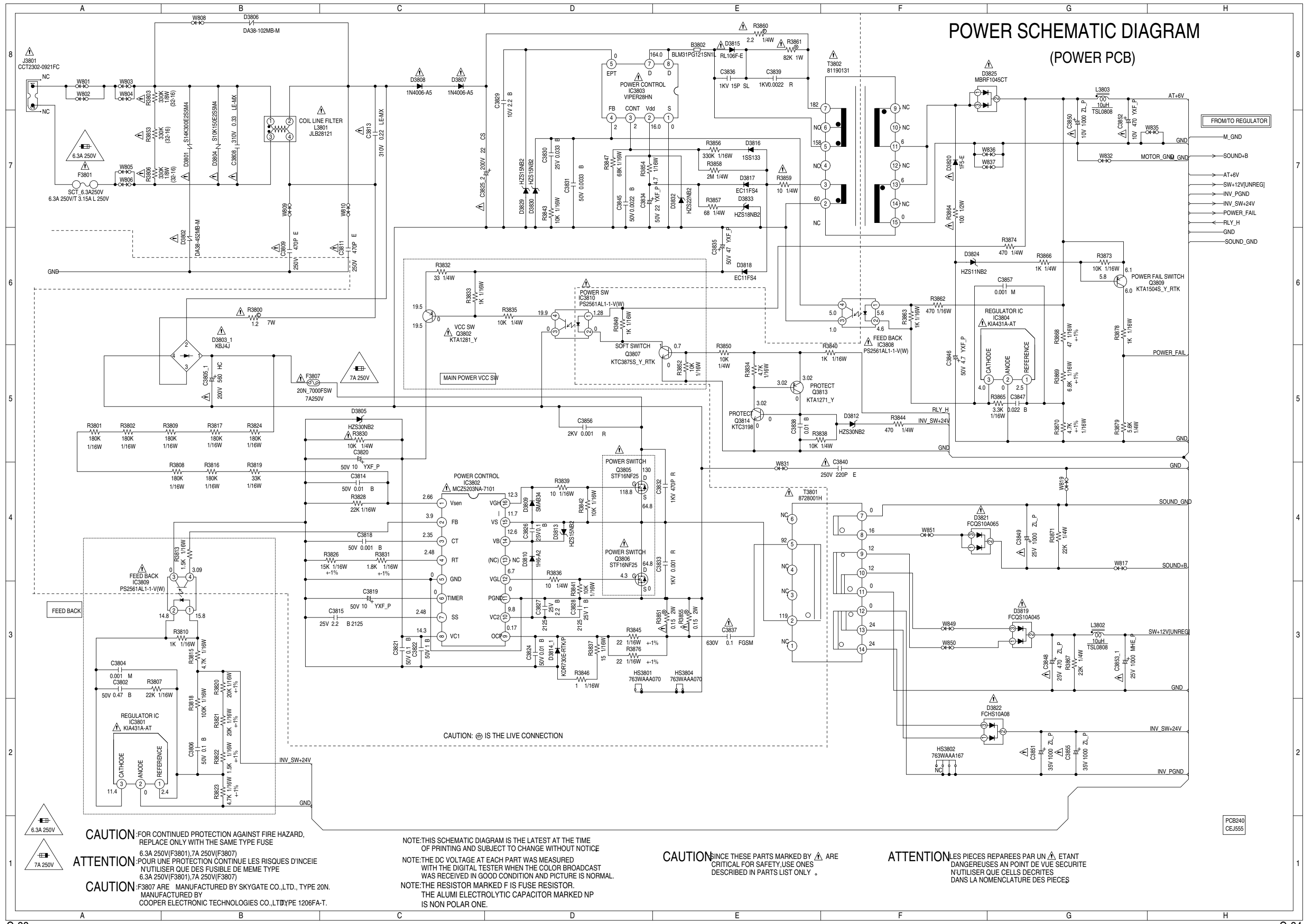
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

CAUTION: DIGITAL TRANSISTOR



PCBDH0
CEJ554

POWER SCHEMATIC DIAGRAM (POWER PCB)



CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE
6.3A 250V(F3801), 7A 250V(F3807)

CAUTION: F3807 ARE MANUFACTURED BY SKYGATE CO.,LTD., TYPE 20N. MANUFACTURED BY COOPER ELECTRONIC TECHNOLOGIES CO.,LTD TYPE 1206FA-T.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

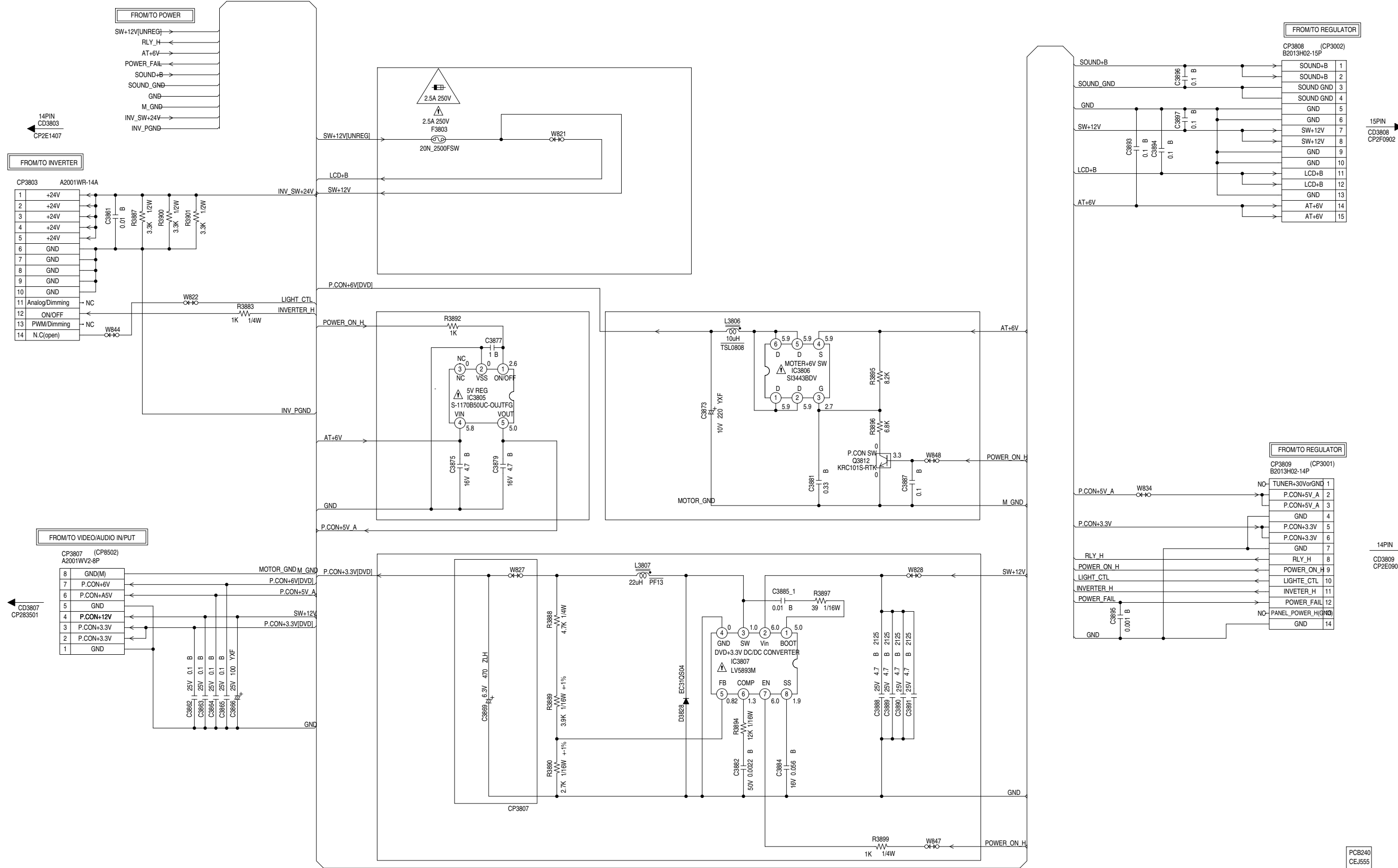
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.
NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR.
THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

PCB240
CEJ555

REGULATOR2 SCHEMATIC DIAGRAM (POWER PCB)



CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 2.5A 250V(F3803)

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 2.5A 250V(F3803)

CAUTION: F3803 ARE MANUFACTURED BY SKYGATE CO.,LTD., TYPE 20N.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

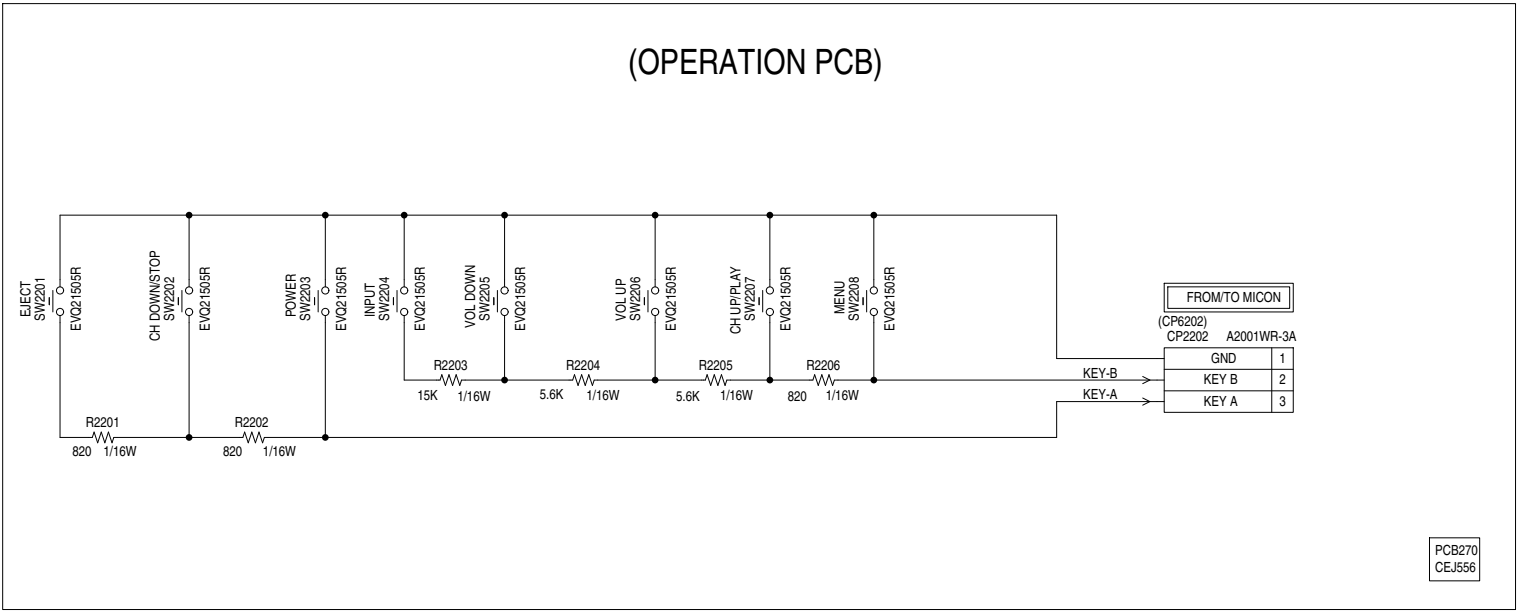
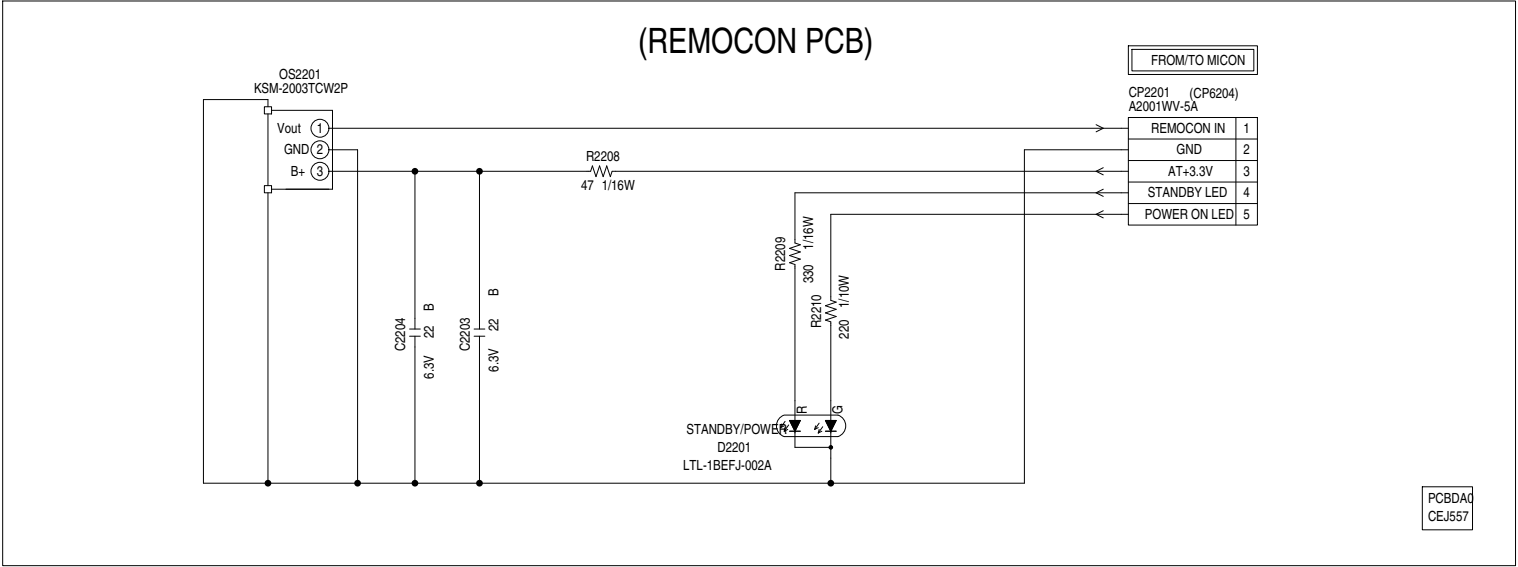
ATTENTION: LES PIECES REPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DÉCRITES DANS LA NOMENCLATURE DES PIECES

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR

OPERATION/REMOCON SCHEMATIC DIAGRAM
(POWER PCB)

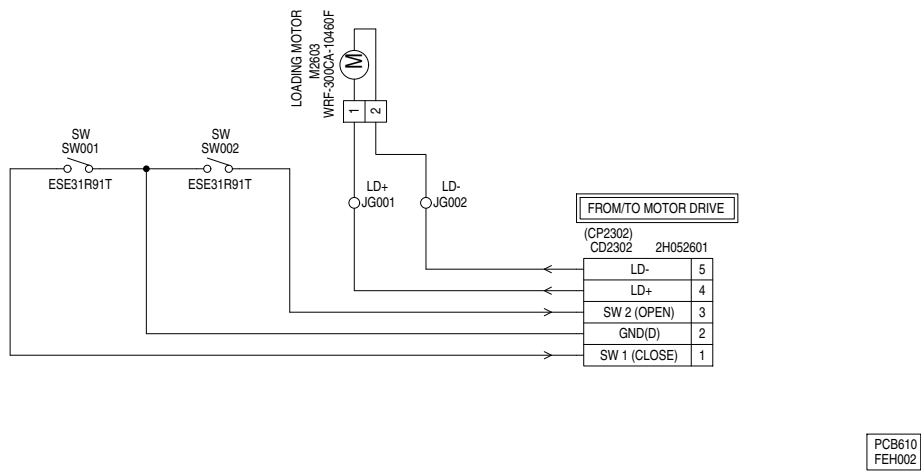


NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

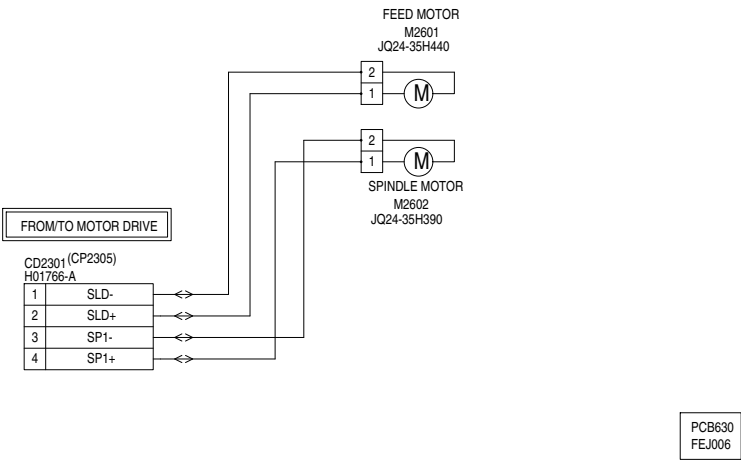
LOADING MOTOR SCHEMATIC DIAGRAM

(LOADING MOTOR PCB)



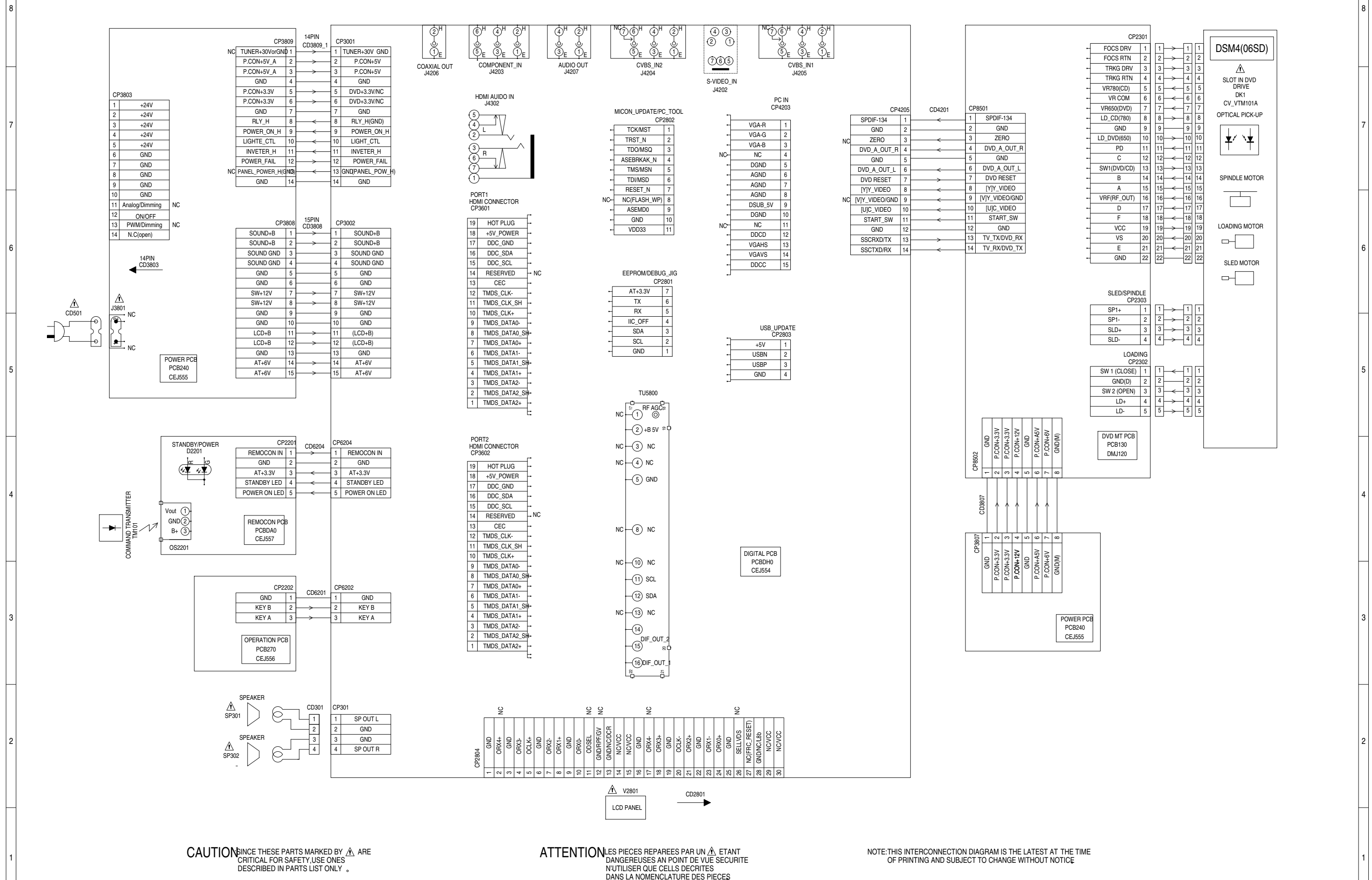
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

(PCB)



NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

INTERCONNECTION DIAGRAM

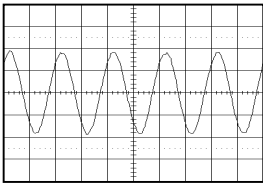


WAVEFORMS

FLASH

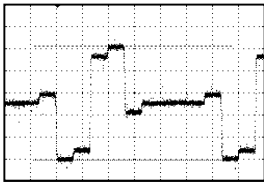
20ns
200mV

1



10us
100mV

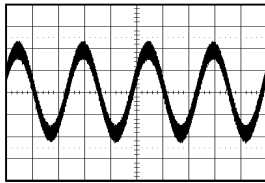
10



SOUND

1ms
200mV

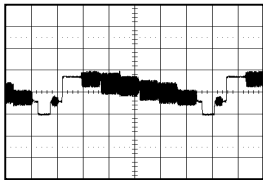
16



SCALER VIDEO/AUDIO

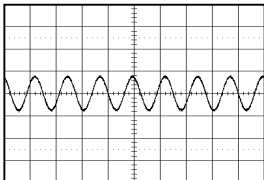
10us
0.5V

3



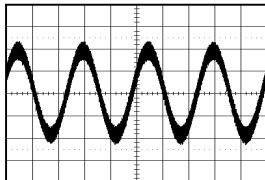
2ms
100mV

11



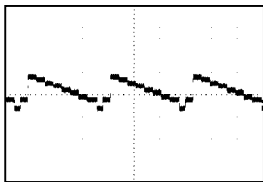
1ms
200mV

17



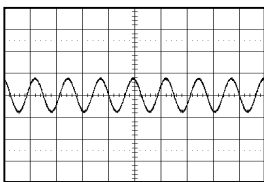
20us
500mV

4



2ms
100mV

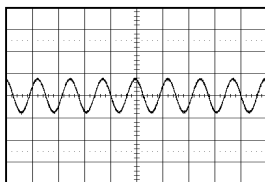
12



JACK2

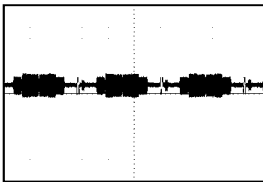
2ms
500mV

18



20us
500mV

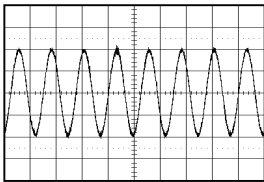
5



JACK

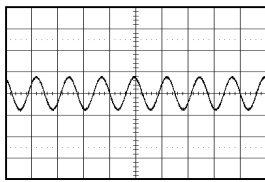
2ms
100mV

13



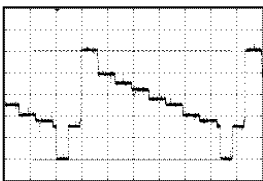
2ms
500mV

19



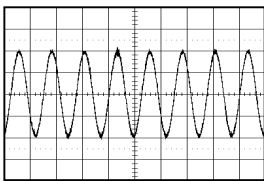
10us
200mV

8



2ms
100mV

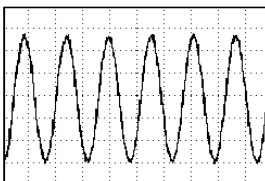
14



MPEG/MICOM/DSP

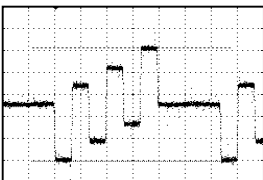
5ns
200mV

50



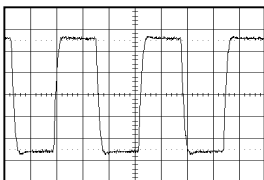
10us
100mV

9



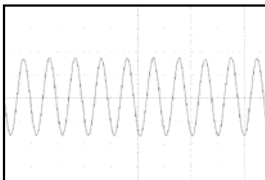
0.2us
200mV

15



20ns
200mV

51



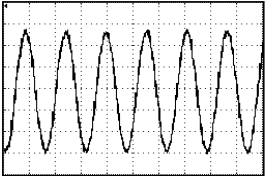
NOTE : The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

MPEG/MICOM/DSP

5ns
200mV

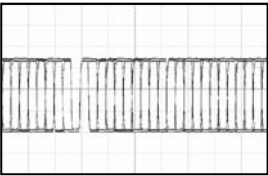
54



VIDEO/AUDIO IN/OUT

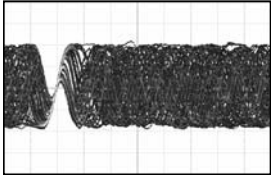
50ms
1V

60



200ns
200mV

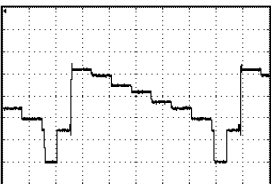
55



VIDEO/AUDIO IN/OUT

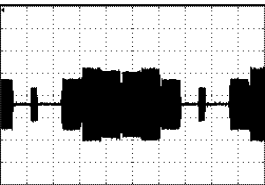
10us
200mV

56



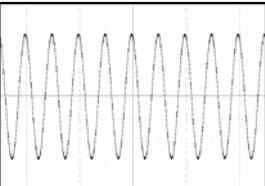
10us
200mV

57



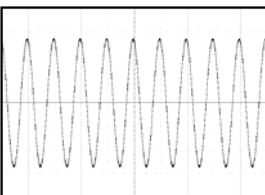
1ms
1V

58



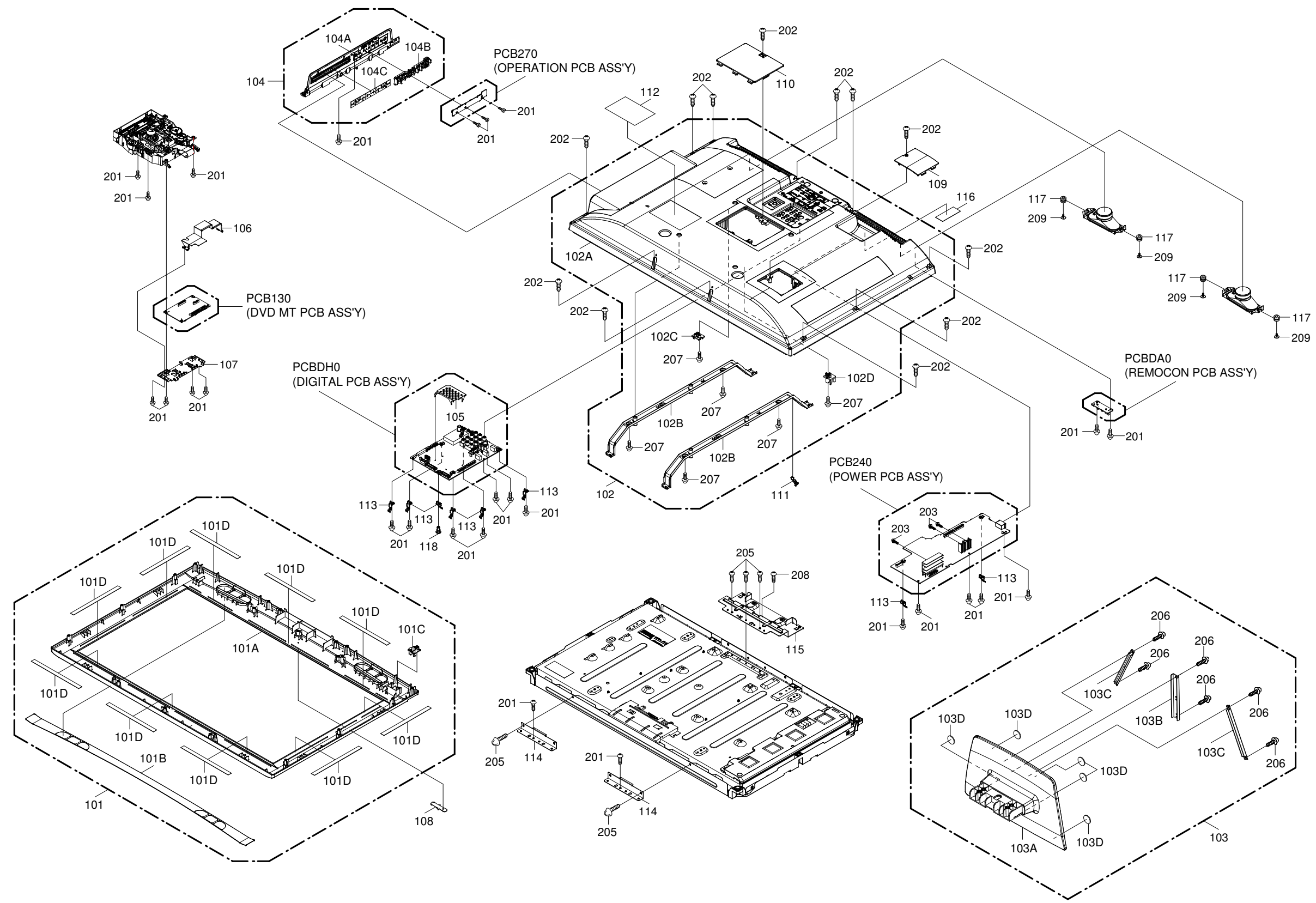
1ms
1V

59

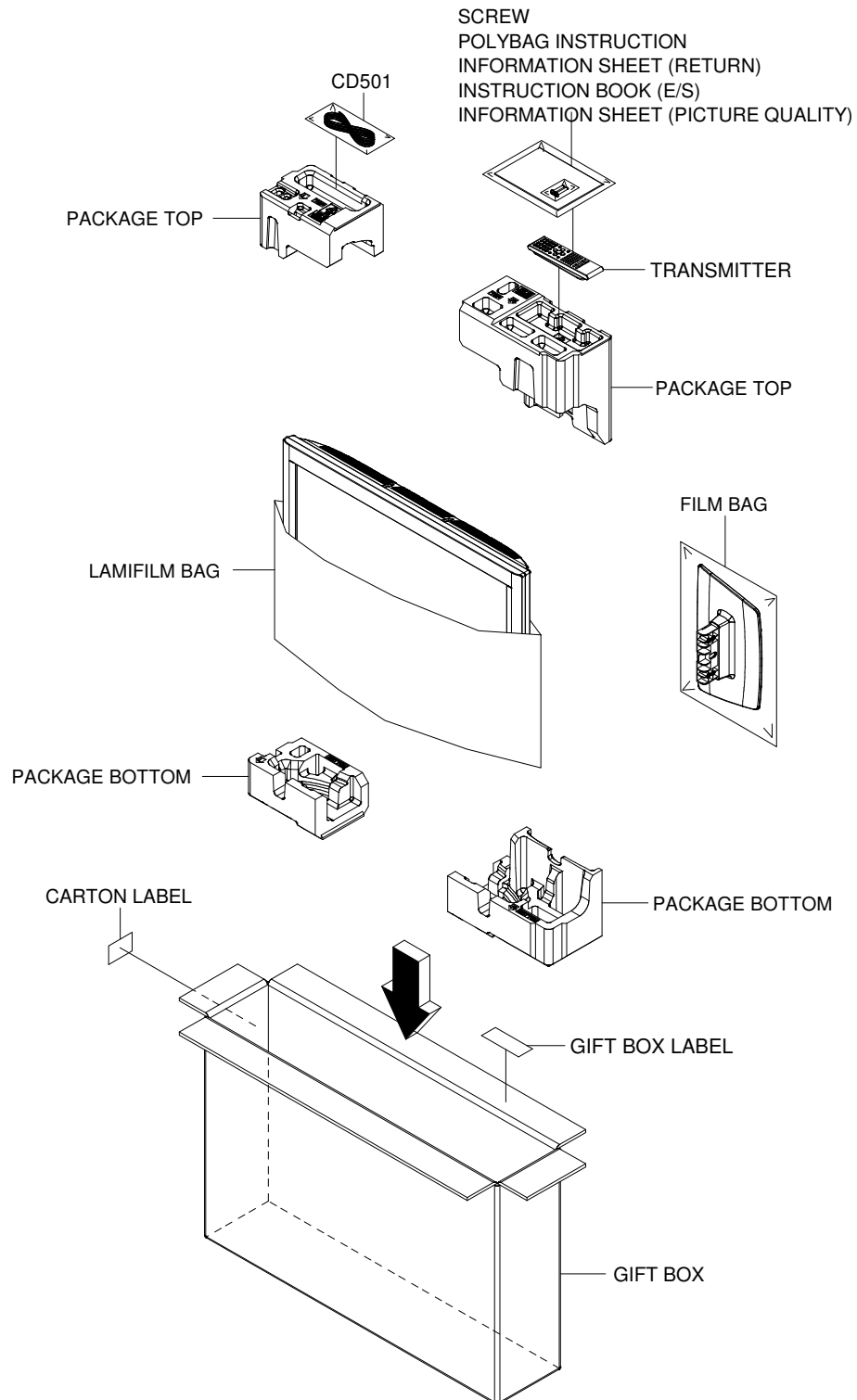


NOTE : The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

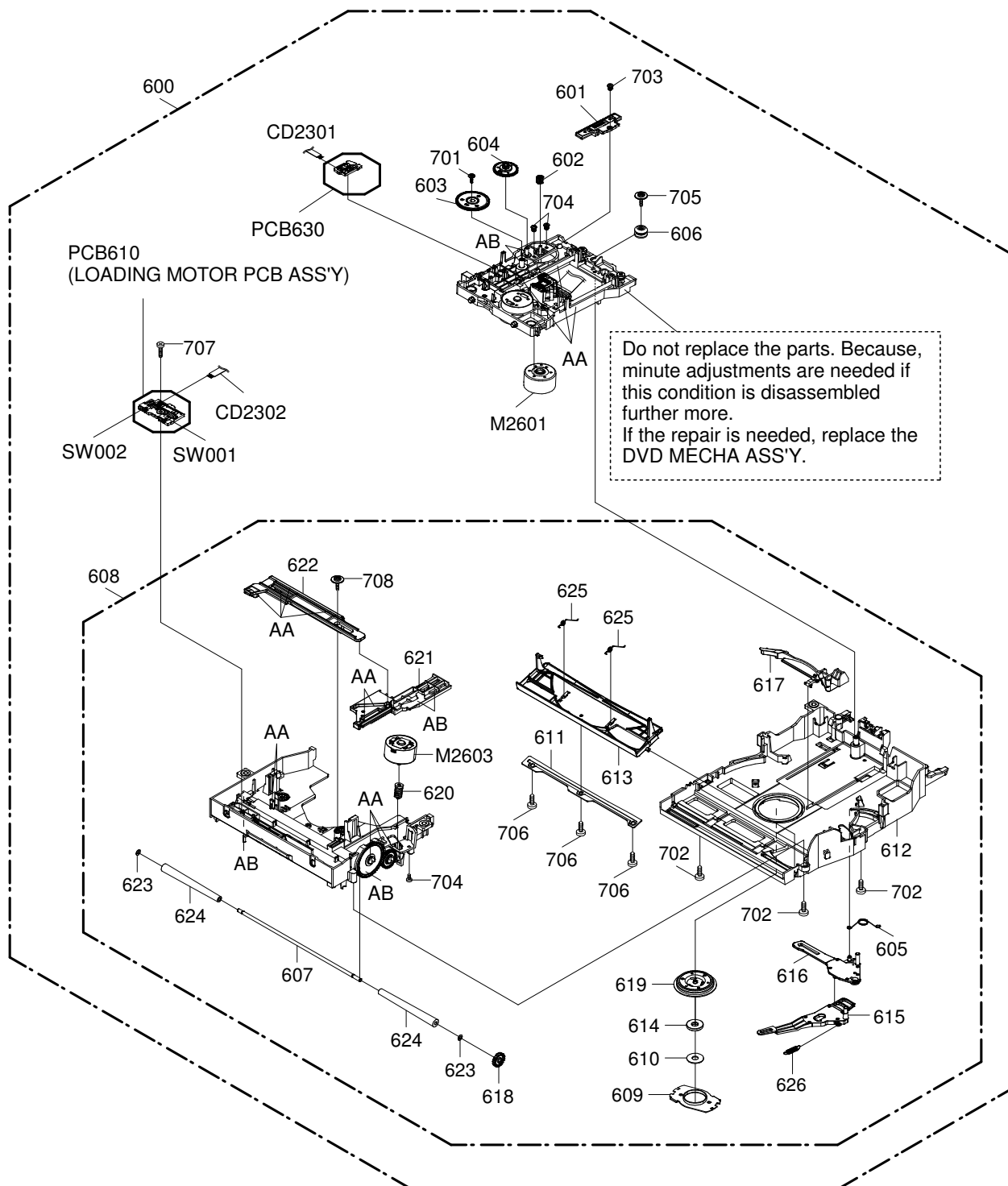
MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW (PACKING DIAGRAM)



DVD DECK EXPLODED VIEW



CLASS	PART NO.	PART NAME	MARK
GREASE	Y315141000	G-313Y	AA
	Y31D041000	CFD-5007Z	AB

NOTE: Applying positions AA and AB for the grease are displayed for this section. Check if the correct grease is applied for each position.

MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
101	7A708A351A	FRONT CABI ASS'Y	
101A	708WPA0051	CABINET FRONT	
101B	702WNAA031	SHEET SPEAKER	
101C	713WPAA295	GLASS LED	
101D	800WQ0A257	FELT SHEET	
102	7A702B078A	BACK CABI ASS'Y	
102A	702WPAB590	CABINET BACK	
102B	761WSA0651	ANGLE MAIN	
102C	761WPAA252	HOLDER PCB	
102D	761WPA0586	HOLDER PCB	
103	7A704A243A	STAND ASS'Y	
103A	704WPBA159	STAND	or
	704WPBA160	STAND	
103B	761WSA0691	ANGLE STAND-1	
103C	761WSA0692	ANGLE STAND-2	
103D	800WFA0135	CUSHION LEG	
104	7A735A044A	PLATE BUTTON ASS'Y	
104A	711WPDA957	PLATE BUTTON-DVD	
104B	735WPA0983	BUTTON FRAME	or
	735WPAB215	BUTTON FRAME	
104C	800WQ00175	FELT SHEET (DVD)	
105	752WSA0737	SHIELD DIGITAL	
106	761WSA0812	SHIELD LVDS BOTTOM	
107	761WSA0813	SHIELD LVDS	
108	723529A005	BADGE BRAND	1AV2BAAS024
109	702WPAB347	COVER INVERTER-2	
110	702WPA1499	COVER LVDS	
111	709WPA0054	HOLDER WIRE	
112	722529A015	SHEET RATING	
113	744WUA0048	SPRING EARTH	
114	761WSAA201	ANGLE LCD-TOP	
115	761WSAA216	ANGLE HINGE	
116	800WQ00170	FELT SHEET	
117	800WR00084	DAMPER SPEAKER	
118	8900P3545B	RIVET	
201	8109230A0U	SCREW TAP TITE(B) BIND	3x10
202	8109230A4U	SCREW TAP TITE(B) BIND	3x14
203	8109130A0U	SCREW TAP TITE(B) WH7	3x10
204	810A14080U	SCREW WASHER(A)	M4x8
205	810B13080U	SCREW WASHER(B)	M3x8
206	811063080U	SCREW TAP TITE(P) BRAZIER	3x8
207	8110630A0U	SCREW TAP TITE(P) BRAZIER	3x10
208	8117540A0U	SCREW TAPPING(B0) TRUSS	4x10
209	8171130A0U	SCREW TAP TITE(B) WASHER12	3x10
---	723000E508	CARTON LABEL	
---	723000E514	GIFT BOX LABEL	
---	791WHAA241	LAMIFILM BAG	
---	791WHAA339	FILM BAG	
---	792WHAA381	PACKAGE TOP	
---	792WHAA382	PACKAGE BOTTOM	
---	793WCDE323	GIFT BOX	
---	8905000014	SCREW	
---	J37I0529A	INFORMATION SHEET(RETURN)	
---	J54H0521B	INSTRUCTION BOOK(E/S)	
---	J54H0559A	INFORMATION SHEET(PICTURE QUALITY)	
---	JA5K0000	POLYBAG INSTRUCTION	

DVD DECK REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
△ 600	A54K01W650	DVD MECHA ASS'Y	A54K01W650
601	92AAA0026A	FEED RACK ASS'Y	
602	92P100203A	GEAR MOTOR	
603	92P100201A	GEAR FEED	
604	92P100202A	GEAR MIDDLE	
605	92P300035A	SPRING LEVER GUIDE	
606	92P200018A	INSULATOR, R	
607	92P500016A	SHAFT ROLLER	
608	A54K01W700	LOADER SUB ASS'Y	
609	92P000036A	COVER CLAMPER	
610	92P000037A	PLATE CLAMPER	
611	92P000039A	PLATE RETAINER	
612	92P100222A	FRAME MAIN	
613	92P100159A	RETAINER SHUTTER	
614	92P400011A	MAGNET CLAMPER	
615	92P100161A	LEVER DISC	
616	92P100162A	LEVER GUIDE	
617	92P100218A	GUIDE DISC	
618	92P100164A	GEAR ROLLER	
619	92P100165A	CLAMPER	
620	92P100172A	GEAR WORM	
621	92P100175A	RACK LEVER	
622	92P100176A	PLATE TRVS UD	
623	92P100180A	LUMIRROR WASHER	
624	92P200020A	ROLLER CONE	
625	92P300033A	SPRING SHUTTER	
626	92P300034A	SPRING LEVER DISC	
701	92P700020A	SCREW TAP TITE(P) PAN WH5.4	1.7x8
702	92P700018A	SCREW TAP TITE(P) BIND	2.6x8
703	813381750U	SCREW,T-TITE(B) CAMERA PAN	M1.7x5.0 P3
704	814011723U	SCREW,PAN	M1.7x2.3 P3
705	92P700021A	SCREW TAP TITE(P) PAN WH8	2x8
706	810922030U	SCREW TAP TITE(B) BIND	2x3
707	810922060U	SCREW,TAP TITE(B) BIND	2x6
708	92P700017A	SCREW TAP TITE(P) BIND WH7	M2.6x8
CD2301	12C5042201	CORD JUMPER	H01766-A
CD2302	12C5052701	CORD JUMPER	H01767-A
M2601	1515U98007	MOTOR	JQ24-35H440
M2603	1596L98004	MOTOR,LOADING	WRF-300CA-10460F or
	1515U98009	MOTOR	JQ24-35H440B
PCB610	A52C01T610	LOADING MOTOR PCB ASS'Y	FEH002B
PCB630	13FEJ006AW	PCB	FEJ006A
SW001	0500101042	PUSH SWITCH	ESE31R11T
SW002	0500101042	PUSH SWITCH	ESE31R11T

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R300	R808R9470J	RC 47 OHM 1/16W	R2849	R808R9101J	RC 100 OHM 1/16W
R301	R808R9100J	RC 10 OHM 1/16W	R2850	R808R9472J	RC 4.7K OHM 1/16W
R303	R808R9100J	RC 10 OHM 1/16W	R2852	R808R9472J	RC 4.7K OHM 1/16W
R304	R808R9222J	RC 2.2K OHM 1/16W	R2853	R808R9472J	RC 4.7K OHM 1/16W
R306	R802R8220J	RC 22 OHM 1/8W	R2856	R808R9682F	RC 6.8K OHM 1/16W
R307	R802R8220J	RC 22 OHM 1/8W	R2859	R808R9472J	RC 4.7K OHM 1/16W
R308	R801R76R8J	RC 6.8 OHM 1/10W	R2861	R808R9102J	RC 1K OHM 1/16W
R309	R801R76R8J	RC 6.8 OHM 1/10W	R2863	R808R9472J	RC 4.7K OHM 1/16W
R310	R801R76R8J	RC 6.8 OHM 1/10W	R2866	R808R9472J	RC 4.7K OHM 1/16W
R311	R801R76R8J	RC 6.8 OHM 1/10W	R2867	R808R9472J	RC 4.7K OHM 1/16W
R2201	R803R9821J	RC 820 OHM 1/16W	R2868	R808R9103J	RC 10K OHM 1/16W
R2202	R803R9821J	RC 820 OHM 1/16W	R2871	R808R9472J	RC 4.7K OHM 1/16W
R2203	R803R9153J	RC 15K OHM 1/16W	R2875	R808R9472J	RC 4.7K OHM 1/16W
R2204	R803R9562J	RC 5.6K OHM 1/16W	R2876	R808R9472J	RC 4.7K OHM 1/16W
R2205	R803R9562J	RC 5.6K OHM 1/16W	R2877	R808R9472J	RC 4.7K OHM 1/16W
R2206	R803R9821J	RC 820 OHM 1/16W	R2878	R808R9153J	RC 15K OHM 1/16W
R2208	R803R9470J	RC 47 OHM 1/16W	R2879	R808R9223J	RC 22K OHM 1/16W
R2209	R803R9331J	RC 330 OHM 1/16W	R2880	R808R9221J	RC 220 OHM 1/16W
R2210	R801R7221J	RC 220 OHM 1/10W	R2882	R808R9472J	RC 4.7K OHM 1/16W
R2301	R808R947J	RC 4.7 OHM 1/16W	R2883	R808R9472J	RC 4.7K OHM 1/16W
R2302	R808R947J	RC 4.7 OHM 1/16W	R2885	R808R9101J	RC 100 OHM 1/16W
R2306	R808R9332J	RC 3.3K OHM 1/16W	R2886	R808R9102J	RC 1K OHM 1/16W
R2307	R808R9332J	RC 3.3K OHM 1/16W	R2891	R808R9103J	RC 10K OHM 1/16W
R2308	R808R9332J	RC 3.3K OHM 1/16W	R2892	R808R9221J	RC 220 OHM 1/16W
R2309	R808R9332J	RC 3.3K OHM 1/16W	R2894	R808R9220J	RC 22 OHM 1/16W
R2310	R808R9103J	RC 10K OHM 1/16W	R2895	R808R9472J	RC 4.7K OHM 1/16W
R2311	R808R9183F	RC 18K OHM 1/16W	R2896	R808R9220J	RC 22 OHM 1/16W
R2312	R808R9822F	RC 8.2K OHM 1/16W	R2898	R808R9472J	RC 4.7K OHM 1/16W
R2313	R808R9103F	RC 10K OHM 1/16W	R2899	R808R9123F	RC 12K OHM 1/16W
R2316	R808R9332J	RC 3.3K OHM 1/16W	R2906	R808R9472J	RC 4.7K OHM 1/16W
R2317	R808R9822F	RC 8.2K OHM 1/16W	R2907	R808R9472J	RC 4.7K OHM 1/16W
R2319	R808R9103J	RC 10K OHM 1/16W	R2908	R808R9472J	RC 4.7K OHM 1/16W
R2325	R808R9471F	RC 470 OHM 1/16W	R2909	R808R9472J	RC 4.7K OHM 1/16W
R2326	R861R4010J	RC 1 OHM 1/4W	R2910	R808R9472J	RC 4.7K OHM 1/16W
R2328	R808R9103J	RC 10K OHM 1/16W	R2911	R808R9472J	RC 4.7K OHM 1/16W
R2341	R808R9103J	RC 10K OHM 1/16W	R2912	R808R9472J	RC 4.7K OHM 1/16W
R2342	R808R9103J	RC 10K OHM 1/16W	R2913	R808R9101J	RC 100 OHM 1/16W
R2344	R808R9103J	RC 10K OHM 1/16W	R2915	R808R9472J	RC 4.7K OHM 1/16W
R2803	R808R9103J	RC 10K OHM 1/16W	R2916	R808R9472J	RC 4.7K OHM 1/16W
R2804	R808R9103J	RC 10K OHM 1/16W	R2917	R808R9472J	RC 4.7K OHM 1/16W
R2805	R808R9103J	RC 10K OHM 1/16W	R2919	R808R9103J	RC 10K OHM 1/16W
R2808	R808R9222J	RC 2.2K OHM 1/16W	R3004	R808R9390J	RC 39 OHM 1/16W
R2809	R808R9201F	RC 200 OHM 1/16W	R3005	R808R9390J	RC 39 OHM 1/16W
R2810	R808R9472J	RC 4.7K OHM 1/16W	R3007	R808R9472J	RC 4.7K OHM 1/16W
R2811	R808R9103J	RC 10K OHM 1/16W	R3008	R808R9102J	RC 1K OHM 1/16W
R2812	R808R9472J	RC 4.7K OHM 1/16W	R3012	R808R9682J	RC 6.8K OHM 1/16W
R2813	R808R9102J	RC 1K OHM 1/16W	R3014	R808R9103J	RC 10K OHM 1/16W
R2815	R808R9220J	RC 22 OHM 1/16W	R3016	R808R9103J	RC 10K OHM 1/16W
R2816	R808R9220J	RC 22 OHM 1/16W	R3017	R808R9822J	RC 8.2K OHM 1/16W
R2817	R808R9220J	RC 22 OHM 1/16W	R3018	R808R9562F	RC 5.6K OHM 1/16W
R2818	R808R9220J	RC 22 OHM 1/16W	R3019	R808R9332F	RC 3.3K OHM 1/16W
R2819	R808R9220J	RC 22 OHM 1/16W	R3020	R808R9102F	RC 1K OHM 1/16W
R2820	R808R9105J	RC 1M OHM 1/16W	R3022	R808R9752J	RC 7.5K OHM 1/16W
R2822	R808R9104J	RC 100K OHM 1/16W	R3023	R808R9223J	RC 22K OHM 1/16W
R2823	R808R9222J	RC 2.2K OHM 1/16W	R3025	R808R9682J	RC 6.8K OHM 1/16W
R2824	R808R9103J	RC 10K OHM 1/16W	R3026	R808R9472J	RC 4.7K OHM 1/16W
R2825	R808R9103J	RC 10K OHM 1/16W	R3027	R808R9822F	RC 8.2K OHM 1/16W
R2826	R808R9392J	RC 3.9K OHM 1/16W	R3028	R808R9302F	RC 3K OHM 1/16W
R2827	R808R9123F	RC 12K OHM 1/16W	R3030	R808R9183F	RC 18K OHM 1/16W
R2828	R808R9472J	RC 4.7K OHM 1/16W	R3031	R808R9332J	RC 3.3K OHM 1/16W
R2829	R808R9101F	RC 100 OHM 1/16W	R3032	R808R9103J	RC 10K OHM 1/16W
R2830	R808R9101F	RC 100 OHM 1/16W	R3033	R808R9103J	RC 10K OHM 1/16W
R2831	R808R9121J	RC 120 OHM 1/16W	R3034	R808R9123J	RC 12K OHM 1/16W
R2832	R808R9330J	RC 33 OHM 1/16W	R3035	R808R9432F	RC 4.3K OHM 1/16W
R2835	R808R9472J	RC 4.7K OHM 1/16W	R3036	R808R9273F	RC 27K OHM 1/16W
R2836	R808R9103J	RC 10K OHM 1/16W	R3039	R808R9103F	RC 10K OHM 1/16W
R2837	R808R9103J	RC 10K OHM 1/16W	R3602	R808R9472J	RC 4.7K OHM 1/16W
R2838	R808R9472J	RC 4.7K OHM 1/16W	R3603	R808R9100J	RC 10 OHM 1/16W
R2839	R808R9472J	RC 4.7K OHM 1/16W	R3604	R808R9100J	RC 10 OHM 1/16W
R2841	R808R9330J	RC 33 OHM 1/16W	R3605	R808R9472J	RC 4.7K OHM 1/16W
R2842	R808R947J	RC 4.7 OHM 1/16W	R3609	R808R9102J	RC 1K OHM 1/16W
R2843	R808R947J	RC 4.7 OHM 1/16W	R3610	R808R9223J	RC 22K OHM 1/16W
R2844	R808R9620F	RC 62 OHM 1/16W	R3611	R808R9102J	RC 1K OHM 1/16W
R2845	R808R9101F	RC 100 OHM 1/16W	R3614	R808R9223J	RC 22K OHM 1/16W
R2846	R808R9101F	RC 100 OHM 1/16W	R3615	R808R9473J	RC 47K OHM 1/16W
R2847	R808R9562F	RC 5.6K OHM 1/16W	R3616	R808R9473J	RC 47K OHM 1/16W
R2848	R808R9103J	RC 10K OHM 1/16W	R3617	R808R9473J	RC 47K OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R3618	R808R9473J	RC 47K OHM 1/16W	R3873	R803R9103J	RC 10K OHM 1/16W
R3635	R808R9332J	RC 3.3K OHM 1/16W	R3874	R002T4471J	RC 470 OHM 1/4W
R3636	R808R9332J	RC 3.3K OHM 1/16W	R3876	R803R9220F	RC 22 OHM 1/16W
R3638	R808R9103J	RC 10K OHM 1/16W	R3878	R803R9102J	RC 1K OHM 1/16W
R3643	R808R9332J	RC 3.3K OHM 1/16W	R3879	R002T4562J	RC 5.6K OHM 1/4W
R3644	R808R9332J	RC 3.3K OHM 1/16W	R3883	R002T4102J	RC 1K OHM 1/4W
R3651	R808R9302J	RC 3K OHM 1/16W	R3887	R002T2332J	RC 3.3K OHM 1/2W
R3652	R808R9752J	RC 7.5K OHM 1/16W	R3888	R002T4472J	RC 4.7K OHM 1/4W
R3653	R808R9682F	RC 6.8K OHM 1/16W	R3889	R803R9392F	RC 3.9K OHM 1/16W
R3654	R808R9561F	RC 560 OHM 1/16W	R3890	R803R9272F	RC 2.7K OHM 1/16W
R3664	R808R9103J	RC 10K OHM 1/16W	R3892	R803R9102J	RC 1K OHM 1/16W
R3677	R808R9103J	RC 10K OHM 1/16W	R3894	R803R9123J	RC 12K OHM 1/16W
R3692	R808R9103J	RC 10K OHM 1/16W	R3895	R803R9822J	RC 8.2K OHM 1/16W
R3694	R808R9103J	RC 10K OHM 1/16W	R3896	R803R9682J	RC 6.8K OHM 1/16W
△ R3800	R5X2AE1R2J	R,CEMENT 1.2 OHM 7W	R3897	R803R9390J	RC 39 OHM 1/16W
R3801	R803R9184J	RC 180K OHM 1/16W	R3899	R002T4102J	RC 1K OHM 1/4W
R3802	R803R9184J	RC 180K OHM 1/16W	R3900	R002T2332J	RC 3.3K OHM 1/2W
△ R3803	R8X2R8334J	RC 330K OHM 1/8W	R3901	R002T2332J	RC 3.3K OHM 1/2W
△ R3806	R8X2R8334J	RC 330K OHM 1/8W	R4002	R808R9103J	RC 10K OHM 1/16W
R3807	R803R9223J	RC 22K OHM 1/16W	R4004	R808R9103J	RC 10K OHM 1/16W
R3808	R803R9184J	RC 180K OHM 1/16W	R4005	R808R9151J	RC 150 OHM 1/16W
R3809	R803R9184J	RC 180K OHM 1/16W	R4006	R808R9472J	RC 4.7K OHM 1/16W
R3810	R803R9102J	RC 1K OHM 1/16W	R4007	R808R9472J	RC 4.7K OHM 1/16W
R3813	R803R9152J	RC 1.5K OHM 1/16W	R4009	R808R9330J	RC 33 OHM 1/16W
R3815	R803R9472J	RC 4.7K OHM 1/16W	R4014	R808R9153J	RC 15K OHM 1/16W
R3816	R803R9184J	RC 180K OHM 1/16W	R4015	R808R9133F	RC 13K OHM 1/16W
R3817	R803R9184J	RC 180K OHM 1/16W	R4016	R808R9822F	RC 8.2K OHM 1/16W
R3818	R803R9104J	RC 100K OHM 1/16W	R4017	R808R9103J	RC 10K OHM 1/16W
R3819	R803R9333J	RC 33K OHM 1/16W	R4018	R808R9133F	RC 13K OHM 1/16W
R3820	R803R9203F	RC 20K OHM 1/16W	R4019	R808R9133F	RC 13K OHM 1/16W
R3821	R803R9203F	RC 20K OHM 1/16W	R4020	R808R9103J	RC 10K OHM 1/16W
R3822	R803R9152F	RC 1.5K OHM 1/16W	R4024	R808R9104J	RC 100K OHM 1/16W
R3823	R803R9472F	RC 4.7K OHM 1/16W	R4026	R808R9103J	RC 10K OHM 1/16W
R3824	R803R9184J	RC 180K OHM 1/16W	R4027	R808R9330J	RC 33 OHM 1/16W
R3826	R803R9153F	RC 15K OHM 1/16W	R4031	R808R9330J	RC 33 OHM 1/16W
R3828	R803R9223J	RC 22K OHM 1/16W	R4034	R808R9103J	RC 10K OHM 1/16W
△ R3830	R002T4103J	RC 10K OHM 1/4W	R4039	R808R9512J	RC 5.1K OHM 1/16W
R3831	R803R9182F	RC 1.8K OHM 1/16W	R4040	R808R9103J	RC 10K OHM 1/16W
R3832	R002T4330J	RC 33 OHM 1/4W	R4042	R808R9103J	RC 10K OHM 1/16W
R3833	R803R9102J	RC 1K OHM 1/16W	R4043	R808R9330J	RC 33 OHM 1/16W
R3834	R803R9472J	RC 4.7K OHM 1/16W	R4044	R808R9103J	RC 10K OHM 1/16W
R3835	R002T4103J	RC 10K OHM 1/4W	R4045	R808R9472J	RC 4.7K OHM 1/16W
R3836	R002T4100J	RC 10 OHM 1/4W	R4046	R808R9681F	RC 680 OHM 1/16W
R3837	R803R9150J	RC 15 OHM 1/16W	R4047	R808R9103J	RC 10K OHM 1/16W
R3838	R002T4103J	RC 10K OHM 1/4W	R4050	R808R9103J	RC 10K OHM 1/16W
R3839	R803R9100J	RC 10 OHM 1/16W	R4052	R808R9471J	RC 470 OHM 1/16W
R3840	R803R9102J	RC 1K OHM 1/16W	R4053	R808R9330J	RC 33 OHM 1/16W
R3841	R803R9103J	RC 10K OHM 1/16W	R4054	R808R9330J	RC 33 OHM 1/16W
R3842	R803R9103J	RC 10K OHM 1/16W	R4055	R803R96R8J	RC 6.8 OHM 1/16W
R3843	R803R9103J	RC 10K OHM 1/16W	R4056	R808R9100J	RC 10 OHM 1/16W
R3844	R002T4471J	RC 470 OHM 1/4W	R4057	R808R9680J	RC 68 OHM 1/16W
R3845	R803R9220F	RC 22 OHM 1/16W	R4059	R808R9750F	RC 75 OHM 1/16W
R3846	R803R9010J	RC 1 OHM 1/16W	R4060	R808R9750F	RC 75 OHM 1/16W
R3847	R803R9683J	RC 68K OHM 1/16W	R4061	R808R9750F	RC 75 OHM 1/16W
R3849	R803R9102J	RC 1K OHM 1/16W	R4062	R808R9750F	RC 75 OHM 1/16W
R3850	R002T4103J	RC 10K OHM 1/4W	R4066	R808R9330J	RC 33 OHM 1/16W
△ R3851	R3K78AR15J	R,METAL OXIDE 0.15 OHM 2W	R4212	R808R9682J	RC 6.8K OHM 1/16W
R3852	R803R9103J	RC 10K OHM 1/16W	R4213	R808R9682J	RC 6.8K OHM 1/16W
△ R3853	R8X2R8334J	RC 330K OHM 1/8W	R4215	R808R9682J	RC 6.8K OHM 1/16W
R3854	R803R9472J	RC 4.7 OHM 1/16W	R4217	R808R9682J	RC 6.8K OHM 1/16W
△ R3855	R3K78AR15J	R,METAL OXIDE 0.15 OHM 2W	R4219	R808R9101J	RC 100 OHM 1/16W
R3856	R803R9334J	RC 330K OHM 1/16W	R4221	R808R9183J	RC 18K OHM 1/16W
R3857	R002T4680J	RC 68 OHM 1/4W	R4223	R808R9183J	RC 18K OHM 1/16W
R3858	R002T4205J	RC 2M OHM 1/4W	R4224	R808R9750J	RC 75 OHM 1/16W
△ R3859	R002T4100J	RC 10 OHM 1/4W	R4225	R808R9750J	RC 75 OHM 1/16W
△ R3860	R655842R2J	R,FUSE 2.2 OHM 1/4W	R4229	R808R9750J	RC 75 OHM 1/16W
△ R3861	R3K781823J	R,METAL OXIDE 82K OHM 1W	R4230	R808R9750J	RC 75 OHM 1/16W
R3862	R803R9471J	RC 470 OHM 1/16W	R4235	R808R9222J	RC 2.2K OHM 1/16W
R3863	R803R9102J	RC 1K OHM 1/16W	R4238	R808R9101J	RC 100 OHM 1/16W
△ R3864	R002T2101J	RC 100 OHM 1/2W	R4239	R808R9102J	RC 1K OHM 1/16W
R3865	R803R9332J	RC 3.3K OHM 1/16W	R4240	R808R9334J	RC 330K OHM 1/16W
R3866	R002T4102J	RC 1K OHM 1/4W	R4241	R808R9472J	RC 4.7K OHM 1/16W
R3867	R002T4223J	RC 22K OHM 1/4W	R4242	R808R9102J	RC 1K OHM 1/16W
R3868	R803R9470F	RC 47 OHM 1/16W	R4243	R808R9472J	RC 4.7K OHM 1/16W
R3869	R803R9682F	RC 6.8K OHM 1/16W	R4244	R808R9102J	RC 1K OHM 1/16W
R3870	R803R9472F	RC 4.7K OHM 1/16W	R4245	R808R9152J	RC 1.5K OHM 1/16W
R3871	R002T4223J	RC 22K OHM 1/4W	R4246	R808R9332J	RC 3.3K OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
RESISTORS				RESISTORS			
R4247	R808R9101J	RC	100 OHM 1/16W	R8515	R808R9103J	RC	10K OHM 1/16W
R4248	R808R9102J	RC	1K OHM 1/16W	R8516	R808R9103J	RC	10K OHM 1/16W
R4249	R808R9221J	RC	220 OHM 1/16W	R8519	R808R9101J	RC	100 OHM 1/16W
R4250	R808R9101J	RC	100 OHM 1/16W	R8522	R808R9223J	RC	22K OHM 1/16W
R4251	R808R9680J	RC	68 OHM 1/16W	R8523	R808R9223J	RC	22K OHM 1/16W
R4252	R808R9332J	RC	3.3K OHM 1/16W	R8525	R808R9221J	RC	220 OHM 1/16W
R4253	R808R9222J	RC	2.2K OHM 1/16W	R8526	R808R9221J	RC	220 OHM 1/16W
R4254	R808R9332J	RC	3.3K OHM 1/16W	CAPACITORS			
R4255	R808R9334J	RC	330K OHM 1/16W	C300	CS0UB0N15K	CC	0.1 UF 10V B
R4256	R808R9683J	RC	68K OHM 1/16W	C301	CS0UB0N15K	CC	0.1 UF 10V B
R4257	R808R9104J	RC	100K OHM 1/16W	C302	CS0UB0N15K	CC	0.1 UF 10V B
R4258	R808R9222J	RC	2.2K OHM 1/16W	C304	CS0UB0413K	CC	0.001 UF 50V B
R4259	R808R9472J	RC	4.7K OHM 1/16W	C305	CS0UB04Q3K	CC	0.0047UF 50V B
R4260	R808R9102J	RC	1K OHM 1/16W	C306	CS0UB0N15K	CC	0.1 UF 10V B
R4261	R808R9750J	RC	75 OHM 1/16W	C307	CS0RB04Q5K	CC	0.47 UF 50V B
R4262	R808R9222J	RC	2.2K OHM 1/16W	C308	CS0UCH4U2J	CC	680 PF 50V CH
R4263	R808R9750J	RC	75 OHM 1/16W	C309	CS0PB0316K	CC	1 UF 25V B
R4264	R808R9102J	RC	1K OHM 1/16W	C310	CS0PB0316K	CC	1 UF 25V B
R4265	R808R9750J	RC	75 OHM 1/16W	C311	CS0PB0315K	CC	0.1 UF 25V B
R4266	R808R9222J	RC	2.2K OHM 1/16W	C312	CS0PB0315K	CC	0.1 UF 25V B
R4267	R808R9561J	RC	560 OHM 1/16W	C313	E7EST4471M	CE	470 UF 35V
R4268	R808R9561J	RC	560 OHM 1/16W	C315	CS0PB0315K	CC	0.1 UF 25V B
R4269	R808R9104J	RC	100K OHM 1/16W	C316	CS0PB0315K	CC	0.1 UF 25V B
R4270	R808R9104J	RC	100K OHM 1/16W	C317	CS0UB04L2K	CC	330 PF 50V B
R4290	R808R9222J	RC	2.2K OHM 1/16W	C318	CS0UB04L2K	CC	330 PF 50V B
R4291	R808R9222J	RC	2.2K OHM 1/16W	C319	CS0PB0415K	CC	0.1 UF 50V B
R4306	R808R9102J	RC	1K OHM 1/16W	C320	CS0PB0415K	CC	0.1 UF 50V B
R4307	R808R9750J	RC	75 OHM 1/16W	C321	CS0PB0415K	CC	0.1 UF 50V B
R4308	R808R9750J	RC	75 OHM 1/16W	C322	CS0PB0415K	CC	0.1 UF 50V B
R4309	R808R9101J	RC	100 OHM 1/16W	C323	CS0PB0415K	CC	0.1 UF 50V B
R4310	R808R9101J	RC	100 OHM 1/16W	C324	CS0PB0415K	CC	0.1 UF 50V B
R4311	R808R9330J	RC	33 OHM 1/16W	C325	CS0PB0415K	CC	0.1 UF 50V B
R4313	R808R9683J	RC	68K OHM 1/16W	C326	CS0PB0415K	CC	0.1 UF 50V B
R4315	R808R9153J	RC	15K OHM 1/16W	C327	CS0UB0413K	CC	0.001 UF 50V B
R4316	R808R9183J	RC	18K OHM 1/16W	C328	CS0UB0413K	CC	0.001 UF 50V B
R4317	R808R9183J	RC	18K OHM 1/16W	C329	CS0UB0413K	CC	0.001 UF 50V B
R4318	R808R9682J	RC	6.8K OHM 1/16W	C330	CS0UB0413K	CC	0.001 UF 50V B
R4319	R808R9682J	RC	6.8K OHM 1/16W	C331	CS0UB0413K	CC	0.001 UF 50V B
R4320	R808R9103J	RC	10K OHM 1/16W	C332	CS0UB0413K	CC	0.001 UF 50V B
R4321	R808R9183J	RC	18K OHM 1/16W	C333	CS0RB04Q5K	CC	0.47 UF 50V B
R4322	R808R9101J	RC	100 OHM 1/16W	C2203	CS0RB0PH7M	CC	22 UF 6.3V B
R4323	R808R9101J	RC	100 OHM 1/16W	C2204	CS0RB0PH7M	CC	22 UF 6.3V B
R4328	R808R9183J	RC	18K OHM 1/16W	C2301	CS0UB0N15K	CC	0.1 UF 10V B
R4329	R808R9101J	RC	100 OHM 1/16W	C2303	CS0UB0N15K	CC	0.1 UF 10V B
R4330	R808R9101J	RC	100 OHM 1/16W	C2304	E7ESU2470M	CE	47 UF 16V
R4333	R808R9750J	RC	75 OHM 1/16W	C2305	CS0UB0N15K	CC	0.1 UF 10V B
R4334	R808R9750J	RC	75 OHM 1/16W	C2306	E7EXU1101D	CE	100 UF 10V
R4335	R808R9750J	RC	75 OHM 1/16W	C2307	CS0UB0N15K	CC	0.1 UF 10V B
R4336	R808R9472J	RC	4.7K OHM 1/16W	C2308	CS0UCH4L1J	CC	33 PF 50V CH
R4337	R808R9472J	RC	4.7K OHM 1/16W	C2311	CS0UB0N15K	CC	0.1 UF 10V B
R4347	R808R9330J	RC	33 OHM 1/16W	C2319	CS0UB0314K	CC	0.01 UF 25V B
R5806	R808R9101J	RC	100 OHM 1/16W	C2320	E7ESU2470M	CE	47 UF 16V
R5807	R808R9101J	RC	100 OHM 1/16W	C2321	E7ESU2470M	CE	47 UF 16V
R5808	R808R9750J	RC	75 OHM 1/16W	C2322	CS0UB0NH5K	CC	0.22 UF 10V B
R5809	R808R9750J	RC	75 OHM 1/16W	C2323	CS0UB0NH5K	CC	0.22 UF 10V B
R5810	R808R9472J	RC	4.7K OHM 1/16W	C2325	CS0UB0315K	CC	0.1 UF 25V B
R5814	R808R9332J	RC	3.3K OHM 1/16W	C2327	CS0UB0315K	CC	0.1 UF 25V B
R5815	R808R9332J	RC	3.3K OHM 1/16W	C2328	CS0UB0315K	CC	0.1 UF 25V B
R5816	R808R9102J	RC	1K OHM 1/16W	C2329	CS0UB0315K	CC	0.1 UF 25V B
R5817	R808R9153J	RC	15K OHM 1/16W	C2330	CS0UB0315K	CC	0.1 UF 25V B
R5818	R808R9153J	RC	15K OHM 1/16W	C2331	CS0UB0315K	CC	0.1 UF 25V B
R5824	R808R9102J	RC	1K OHM 1/16W	C2332	CS0UCH411J	CC	10 PF 50V CH
R6207	R808R9103J	RC	10K OHM 1/16W	C2333	CS0UB0314K	CC	0.01 UF 25V B
R6208	R808R9472J	RC	4.7K OHM 1/16W	C2334	CS0UB0314K	CC	0.01 UF 25V B
R6501	R808R9101J	RC	100 OHM 1/16W	C2335	CS0UCH412J	CC	100 PF 50V CH
R6502	R808R9101J	RC	100 OHM 1/16W	C2801	CS0UB0N15K	CC	0.1 UF 10V B
R8501	R808R9100J	RC	10 OHM 1/16W	C2803	CS0UB0214K	CC	0.01 UF 16V B
R8502	R808R9100J	RC	10 OHM 1/16W	C2804	CS0PB0NQ5K	CC	0.47 UF 10V B
R8503	R808R9334J	RC	330K OHM 1/16W	C2805	CS0UB0214K	CC	0.01 UF 16V B
R8504	R808R9103J	RC	10K OHM 1/16W	C2807	CS0UCH4H1J	CC	22 PF 50V CH
R8505	R808R9103J	RC	10K OHM 1/16W	C2808	CS0UCH4K1J	CC	27 PF 50V CH
R8506	R808R9334J	RC	330K OHM 1/16W	C2810	CS0UB0413K	CC	0.001 UF 50V B
R8507	R808R9100J	RC	10 OHM 1/16W	C2811	CS0RB0N17K	CC	10 UF 10V B
R8509	R808R9223J	RC	22K OHM 1/16W	C2812	CS0UB0N15K	CC	0.1 UF 10V B
R8510	R808R9223J	RC	22K OHM 1/16W	C2813	CS0UB0N15K	CC	0.1 UF 10V B
R8511	R808R9103J	RC	10K OHM 1/16W	C2814	CS0UB0N15K	CC	0.1 UF 10V B
R8513	R808R9103J	RC	10K OHM 1/16W	C2815	CS0UB0N15K	CC	0.1 UF 10V B

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION			REF. NO.	PART NO.	DESCRIPTION		
CAPACITORS					CAPACITORS				
C2816	CS0UB0N15K	CC	0.1	UF 10V B	C2904	CS0UB0N15K	CC	0.1	UF 10V B
C2817	CS0UB0N15K	CC	0.1	UF 10V B	C2905	CS0UB0N15K	CC	0.1	UF 10V B
C2818	CS0UB0N15K	CC	0.1	UF 10V B	C2906	CS0UB0N16K	CC	1	UF 10V B
C2819	CS0UB0N15K	CC	0.1	UF 10V B	C2907	CS0UB0N16K	CC	1	UF 10V B
C2820	CS0UB0N15K	CC	0.1	UF 10V B	C2908	CS0UB0N16K	CC	1	UF 10V B
C2821	CS0UB0N15K	CC	0.1	UF 10V B	C2909	CS0UB0N15K	CC	0.1	UF 10V B
C2822	CS0UB0N15K	CC	0.1	UF 10V B	C2911	CS0RB0N17K	CC	10	UF 10V B
C2823	CS0UB0N15K	CC	0.1	UF 10V B	C2912	CS0UB0N15K	CC	0.1	UF 10V B
C2824	CS0UB0N15K	CC	0.1	UF 10V B	C2913	CS0UB0N15K	CC	0.1	UF 10V B
C2825	CS0UB0N15K	CC	0.1	UF 10V B	C2914	CS0UB0N15K	CC	0.1	UF 10V B
C2826	CS0UB0N15K	CC	0.1	UF 10V B	C2915	CS0UB0N16K	CC	1	UF 10V B
C2827	CS0UB0N15K	CC	0.1	UF 10V B	C2916	CS0UB0N15K	CC	0.1	UF 10V B
C2828	CS0UB0N15K	CC	0.1	UF 10V B	C2917	CS0RB0N17K	CC	10	UF 10V B
C2829	CS0UB0N15K	CC	0.1	UF 10V B	C2918	CS0RB0N17K	CC	10	UF 10V B
C2830	CS0UB0N15K	CC	0.1	UF 10V B	C2919	CS0UB0N16K	CC	1	UF 10V B
C2831	CS0UB0N15K	CC	0.1	UF 10V B	C2921	CS0UB0N15K	CC	0.1	UF 10V B
C2832	CS0UB0N15K	CC	0.1	UF 10V B	C2923	CS0PB0N16K	CC	1	UF 10V B
C2833	CS0UB0N15K	CC	0.1	UF 10V B	C2925	CS0RB0N17K	CC	10	UF 10V B
C2834	CS0UB0N15K	CC	0.1	UF 10V B	C2926	CS0RB0N17K	CC	10	UF 10V B
C2835	CS0UB0N15K	CC	0.1	UF 10V B	C2927	CS0RB0N17K	CC	10	UF 10V B
C2836	CS0UB0N15K	CC	0.1	UF 10V B	C2928	CS0RB0N17K	CC	10	UF 10V B
C2837	CS0UB0N15K	CC	0.1	UF 10V B	C2929	CS0RB0N17K	CC	10	UF 10V B
C2838	CS0UB0N15K	CC	0.1	UF 10V B	C2930	CS0RB0N17K	CC	10	UF 10V B
C2839	CS0UB0N15K	CC	0.1	UF 10V B	C2931	CS0UB0N15K	CC	0.1	UF 10V B
C2840	CS0UB0N15K	CC	0.1	UF 10V B	C2932	CS0UB0N15K	CC	0.1	UF 10V B
C2841	E81XML331D	CE	330	UF 2.5V	C2933	CS0UB0N15K	CC	0.1	UF 10V B
C2842	CS0UB0N16K	CC	1	UF 10V B	C2934	CS0UB0N15K	CC	0.1	UF 10V B
C2843	CS0UB0N15K	CC	0.1	UF 10V B	C2935	CS0RB0N17K	CC	10	UF 10V B
C2844	CS0UB0N15K	CC	0.1	UF 10V B	C2936	CS0UB0N15K	CC	0.1	UF 10V B
C2845	CS0UB0N15K	CC	0.1	UF 10V B	C2937	CS0UB0N15K	CC	0.1	UF 10V B
C2846	CS0UB0N15K	CC	0.1	UF 10V B	C2938	CS0UB0N15K	CC	0.1	UF 10V B
C2847	CS0UB0N15K	CC	0.1	UF 10V B	C2939	CS0UB0N15K	CC	0.1	UF 10V B
C2848	CS0UB0N16K	CC	1	UF 10V B	C2940	CS0UB0N15K	CC	0.1	UF 10V B
C2851	E7EPU2221M	CE	220	UF 16V	C2941	CS0UB0N15K	CC	0.1	UF 10V B
C2854	CS0PB0315K	CC	0.1	UF 25V B	C2942	CS0UB0N15K	CC	0.1	UF 10V B
C2855	CS0RB0N17K	CC	10	UF 10V B	C2943	CS0UB0N15K	CC	0.1	UF 10V B
C2856	CS0RB0N17K	CC	10	UF 10V B	C2944	CS0UB0N15K	CC	0.1	UF 10V B
C2857	CS0UB0N15K	CC	0.1	UF 10V B	C2945	CS0UB0N15K	CC	0.1	UF 10V B
C2858	CS0UB0N15K	CC	0.1	UF 10V B	C2946	CS0PB0N16K	CC	1	UF 10V B
C2859	CS0UB0N15K	CC	0.1	UF 10V B	C2948	CS0PB0N16K	CC	1	UF 10V B
C2860	CS0RB0N17K	CC	10	UF 10V B	C2950	CS0UB0N15K	CC	0.1	UF 10V B
C2861	CS0RB0N17K	CC	10	UF 10V B	C2951	CS0RB0N17K	CC	10	UF 10V B
C2862	CS0RB0N17K	CC	10	UF 10V B	C2952	CS0PB0N16K	CC	1	UF 10V B
C2863	CS0RB0N17K	CC	10	UF 10V B	C2953	CS0UB0N15K	CC	0.1	UF 10V B
C2864	CS0UB0N15K	CC	0.1	UF 10V B	C2954	CS0UB0N15K	CC	0.1	UF 10V B
C2865	CS0UB0N15K	CC	0.1	UF 10V B	C2955	CS0UB0N15K	CC	0.1	UF 10V B
C2866	CS0UB0N15K	CC	0.1	UF 10V B	C2956	CS0UB0N15K	CC	0.1	UF 10V B
C2867	CS0UB0N15K	CC	0.1	UF 10V B	C2957	CS0UB0N15K	CC	0.1	UF 10V B
C2868	CS0UB0N15K	CC	0.1	UF 10V B	C2958	CS0UB0N15K	CC	0.1	UF 10V B
C2869	CS0UB0N15K	CC	0.1	UF 10V B	C2959	E7EXU2220D	CE	22	UF 16V
C2870	CS0UB0N16K	CC	1	UF 10V B	C2960	CS0UB0N15K	CC	0.1	UF 10V B
C2871	CS0UB0N16K	CC	1	UF 10V B	C2961	CS0UCH4Q2J	CC	470	PF 50V CH
C2872	CS0RB0N17K	CC	10	UF 10V B	C2962	CS0UCH4Q2J	CC	470	PF 50V CH
C2873	CS0UB0N15K	CC	0.1	UF 10V B	C2963	CS0UB0N15K	CC	0.1	UF 10V B
C2874	CS0UB0N15K	CC	0.1	UF 10V B	C2964	CS0UB0N15K	CC	0.1	UF 10V B
C2875	CS0UB0N15K	CC	0.1	UF 10V B	C2966	CS0RB0N17K	CC	10	UF 10V B
C2876	CS0UB0N15K	CC	0.1	UF 10V B	C2967	CS0PB0N16K	CC	1	UF 10V B
C2877	CS0UB0N15K	CC	0.1	UF 10V B	C2972	CS0PB0N16K	CC	1	UF 10V B
C2878	CS0UB0N16K	CC	1	UF 10V B	C2974	CS0PB0N16K	CC	1	UF 10V B
C2879	CS0UB0N15K	CC	0.1	UF 10V B	C2976	CS0UB0N15K	CC	0.1	UF 10V B
C2880	CS0UB0N15K	CC	0.1	UF 10V B	C2979	CS0UB0N15K	CC	0.1	UF 10V B
C2881	CS0UB0N15K	CC	0.1	UF 10V B	C2980	CS0UB0N15K	CC	0.1	UF 10V B
C2882	CS0UB0N15K	CC	0.1	UF 10V B	C2981	CS0UB0N15K	CC	0.1	UF 10V B
C2883	CS0UB0N15K	CC	0.1	UF 10V B	C2982	CS0UB0N15K	CC	0.1	UF 10V B
C2884	CS0UB0N15K	CC	0.1	UF 10V B	C2984	CS0PB0N16K	CC	1	UF 10V B
C2885	CS0UB0N15K	CC	0.1	UF 10V B	C2986	E7EPU0331M	CE	330	UF 6.3V
C2886	CS0UB0N15K	CC	0.1	UF 10V B	C3002	CS0RB02Q6K	CC	4.7	UF 16V B
C2887	CS0UB0N15K	CC	0.1	UF 10V B	C3003	CS0PB0415K	CC	0.1	UF 50V B
C2888	CS0UB0N15K	CC	0.1	UF 10V B	C3004	CS0UB0N15K	CC	0.1	UF 10V B
C2889	CS0UB0N15K	CC	0.1	UF 10V B	C3006	CS0RB02Q6K	CC	4.7	UF 16V B
C2891	CS0UB0N15K	CC	0.1	UF 10V B	C3008	CS0UB0413K	CC	0.001	UF 50V B
C2897	CS0UB0N15K	CC	0.1	UF 10V B	C3009	CS0RB0N17K	CC	10	UF 10V B
C2898	CS0UB0N16K	CC	1	UF 10V B	C3011	CS0PB0N16K	CC	1	UF 10V B
C2899	CS0UB0N16K	CC	1	UF 10V B	C3012	CS0UB0N15K	CC	0.1	UF 10V B
C2900	CS0UB0N15K	CC	0.1	UF 10V B	C3014	CS0RB0N17K	CC	10	UF 10V B
C2902	CS0UB0N16K	CC	1	UF 10V B	C3015	CS0UB0N15K	CC	0.1	UF 10V B
C2903	CS0UB0N16K	CC	1	UF 10V B	C3016	CS0PB0315K	CC	0.1	UF 25V B

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
CAPACITORS				CAPACITORS			
C3017	CS0PB0315K	CC	0.1 UF 25V B	C3863	CS0PB0315K	CC	0.1 UF 25V B
C3020	CS0RB0N17K	CC	10 UF 10V B	C3864	CS0PB0315K	CC	0.1 UF 25V B
C3022	CS0UB03E4K	CC	0.015 UF 25V B	C3865	CS0PB0315K	CC	0.1 UF 25V B
C3024	CS0UB0314K	CC	0.01 UF 25V B	C3866	E8E2U3101D	CE	100 UF 25V
C3025	CS0RB0N17K	CC	10 UF 10V B	C3869	E8E1U0471M	CE	470 UF 6.3V
C3026	CS0UB0215K	CC	0.1 UF 16V B	C3873	E8E2U1221D	CE	220 UF 10V
C3027	CS0RB0N17K	CC	10 UF 10V B	C3875	CS0RB02Q6K	CC	4.7 UF 16V B
C3029	CS0UB04H4K	CC	0.022 UF 50V B	C3877	CS0PB0N16K	CC	1 UF 10V B
C3031	E71GMM151D	CE	150 UF 2V	C3879	CS0RB02Q6K	CC	4.7 UF 16V B
C3032	CS0UB0N15K	CC	0.1 UF 10V B	C3881	CS0PB0NL5K	CC	0.33 UF 10V B
C3034	CS0UB0N15K	CC	0.1 UF 10V B	C3882	CS0PB04H3K	CC	0.0022UF 50V B
C3035	CS0UB0314K	CC	0.01 UF 25V B	C3884	CS0PB02S4K	CC	0.056 UF 16V B
C3036	CS0UB0413K	CC	0.001 UF 50V B	C3885	CS0PB0414K	CC	0.01 UF 50V B
C3039	CS0UB03E4K	CC	0.015 UF 25V B	C3887	CS0PB0315K	CC	0.1 UF 25V B
C3043	CS0PB0315K	CC	0.1 UF 25V B	C3888	CS0RB03Q6K	CC	4.7 UF 25V B
C3045	CS0RB0N17K	CC	10 UF 10V B	C3889	CS0RB03Q6K	CC	4.7 UF 25V B
C3054	CS0UB0413K	CC	0.001 UF 50V B	C3890	CS0RB03Q6K	CC	4.7 UF 25V B
C3057	E71GMQ101D	CE	100 UF 4V	C3891	CS0RB03Q6K	CC	4.7 UF 25V B
C3058	E7EPU2101M	CE	100 UF 16V	C3893	CS0PB0315K	CC	0.1 UF 25V B
C3059	CS0UB03Q4K	CC	0.047 UF 25V B	C3894	CS0PB0315K	CC	0.1 UF 25V B
C3062	CS0UB0N15K	CC	0.1 UF 10V B	C3895	CS0PB0413K	CC	0.001 UF 50V B
C3064	CS0PB0PQ6K	CC	4.7 UF 6.3V B	C3896	CS0PB0315K	CC	0.1 UF 25V B
C3065	CS0RB02Q6K	CC	4.7 UF 16V B	C3897	CS0PB0315K	CC	0.1 UF 25V B
C3601	CS0UB0N15K	CC	0.1 UF 10V B	C4001	CS0UB0N15K	CC	0.1 UF 10V B
C3602	CS0UB0N15K	CC	0.1 UF 10V B	C4003	CS0UB0N15K	CC	0.1 UF 10V B
C3607	CS0UB0214K	CC	0.01 UF 16V B	C4005	CS0UB0N15K	CC	0.1 UF 10V B
C3608	CS0UB04H3K	CC	0.0022UF 50V B	C4006	CS0UB0P16K	CC	1 UF 6.3V B
C3609	CS0UB0N15K	CC	0.1 UF 10V B	C4007	CS0UB0N15K	CC	0.1 UF 10V B
C3610	CS0PB0PQ6K	CC	4.7 UF 6.3V B	C4008	CS0UB0N15K	CC	0.1 UF 10V B
C3613	CS0UB03H4K	CC	0.022 UF 25V B	C4012	CS0UCH412J	CC	100 PF 50V CH
C3627	CS0UB0N15K	CC	0.1 UF 10V B	C4013	CS0UB0N15K	CC	0.1 UF 10V B
C3802	CS0RB04Q5K	CC	0.47 UF 50V B	C4015	E7ESU0221M	CE	220 UF 6.3V
C3804	P1S3T0102J	CP	0.001 UF 50V	C4019	CS0RB0PQ6K	CC	4.7 UF 6.3V B
△ C3805	E718HC561D	CE	560 UF 200V	C4020	CS0UB0N15K	CC	0.1 UF 10V B
C3806	CS0PB0415K	CC	0.1 UF 50V B	C4023	CS0UB0N15K	CC	0.1 UF 10V B
△ C3808	P4K12D334K	CMPP	0.33 UF 310V	C4029	CS0UB0N15K	CC	0.1 UF 10V B
△ C3809	CE39E0MQ2K	CC	470 PF 250V E	C4033	CS0UCH4K1J	CC	27 PF 50V CH
△ C3811	CE39E0MQ2K	CC	470 PF 250V E	C4036	CS0UB0N15K	CC	0.1 UF 10V B
△ C3813	P4K12D224K	CMPP	0.22 UF 310V	C4037	CS0UCH4K1J	CC	27 PF 50V CH
C3814	CS0PB0414K	CC	0.01 UF 50V B	C4038	CS0UB0N15K	CC	0.1 UF 10V B
C3815	CS3RB03H6K	CC	2.2 UF 25V B	C4041	CS0UCH412J	CC	100 PF 50V CH
C3818	CS0PB0413K	CC	0.001 UF 50V B	C4043	CS0UB0314K	CC	0.01 UF 25V B
C3819	E8E2U5100D	CE	10 UF 50V	C4044	E7EXU2220D	CE	22 UF 16V
C3820	E8E2U5100D	CE	10 UF 50V	C4045	CS0UB03U3K	CC	0.0068UF 25V B
C3821	CS0PB0415K	CC	0.1 UF 50V B	C4047	E7EXU1221D	CE	220 UF 10V
C3822	CS3RB0416K	CC	1 UF 50V B	C4048	CS0UB0413K	CC	0.001 UF 50V B
C3824	CS0PB0414K	CC	0.01 UF 50V B	C4049	CS0UB0413K	CC	0.001 UF 50V B
△ C3825	E9UEFC220D	CE	22 UF 200V	C4050	E7ESU0221M	CE	220 UF 6.3V
C3826	CS0PB0315K	CC	0.1 UF 25V B	C4052	CS0UB0N15K	CC	0.1 UF 10V B
C3827	CS3RB03H6K	CC	2.2 UF 25V B	C4053	CS0UB0413K	CC	0.001 UF 50V B
C3828	CS3RB0316K	CC	1 UF 25V B	C4054	CS0UB0314K	CC	0.01 UF 25V B
C3829	CS0PB0NH6K	CC	2.2 UF 10V B	C4055	CS0UB0N15K	CC	0.1 UF 10V B
C3830	CS0PB03L4K	CC	0.033 UF 25V B	C4057	CS0UB0413K	CC	0.001 UF 50V B
C3831	CS0PB04L3K	CC	0.0033UF 50V B	C4058	CS0UB0N15K	CC	0.1 UF 10V B
C3832	C0340R6Q2K	CC	470 PF 1KV R	C4059	CS0UB04E3K	CC	0.0015UF 50V B
C3833	C0340R613K	CC	0.001 UF 1KV R	C4060	CS0UB0413K	CC	0.001 UF 50V B
C3834	E8E2U5220D	CE	22 UF 50V	C4062	CS0UB0N15K	CC	0.1 UF 10V B
C3835	E8E2U5470D	CE	47 UF 50V	C4063	CS0UB0N15K	CC	0.1 UF 10V B
C3836	C234SL6E1J	CC	15 PF 1KV SL	C4064	CS0UB0N15K	CC	0.1 UF 10V B
△ C3837	P4NBE5104H	CMPP	0.1 UF 630V FGSM	C4066	CS0UB0P16K	CC	1 UF 6.3V B
C3838	CS0PB0414K	CC	0.01 UF 50V B	C4071	CS0UB0413K	CC	0.001 UF 50V B
C3839	C0390R6H3K	CC	0.0022UF 1KV R	C4072	CS0UCH412J	CC	100 PF 50V CH
△ C3840	CE39E0MH2K	CC	220 PF 250V E	C4073	CS0UB0N15K	CC	0.1 UF 10V B
C3845	CS0PB04H3K	CC	0.0022UF 50V B	C4074	CS0UB0N15K	CC	0.1 UF 10V B
C3846	E8E2U54R7D	CE	4.7 UF 50V	C4075	CS0UCH4H1J	CC	22 PF 50V CH
C3847	CS0PB04H4K	CC	0.022 UF 50V B	C4076	CS0UCH412J	CC	100 PF 50V CH
△ C3848	E8EYF3471M	CE	470 UF 25V	C4088	CS0UCH4H2J	CC	220 PF 50V CH
△ C3849	E7EYF3102M	CE	1000 UF 25V	C4089	CS0UB03E4K	CC	0.015 UF 25V B
△ C3850	E7EYT1102M	CE	1000 UF 10V	C4090	CS0UB0N15K	CC	0.1 UF 10V B
△ C3851	E7EYF4102M	CE	1000 UF 35V	C4101	CS0UCH4K2J	CC	270 PF 50V CH
△ C3852	E8E2T1471D	CE	470 UF 10V	C4102	CS0UCH4K2J	CC	270 PF 50V CH
△ C3853	E7ESF3102M	CE	1000 UF 25V	C4122	CS0UCH412J	CC	100 PF 50V CH
△ C3855	E7EYF4102M	CE	1000 UF 35V	C4123	CS0UCH412J	CC	100 PF 50V CH
C3856	C03L0R713K	CC	0.001 UF 2KV R	C4230	CS0UB0N15K	CC	0.1 UF 10V B
C3857	P1S3T0102J	CP	0.001 UF 50V	C4231	E7EPU2470M	CE	47 UF 16V
C3861	CS0PB0414K	CC	0.01 UF 50V B	C4235	CS0RB0N17K	CC	10 UF 10V B
C3862	CS0PB0315K	CC	0.1 UF 25V B	C4236	CS0UB0N16K	CC	1 UF 10V B

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
CAPACITORS				DIODES			
C4237	CS0UCH4Q2J	CC	470 PF 50V CH	D3805	DJBUA30012	DIODE ZENER	HZS30NB2
C4239	CS0RB0N17K	CC	10 UF 10V B	D3806	DOU011020M	DIODE VARISTA	DA38-102MB-M
C4240	CS0UB0N15K	CC	0.1 UF 10V B	△D3807	D4CTN40060	DIODE SILICON	1N4006-A5
C4242	CS0RB0N17K	CC	10 UF 10V B	△D3808	D4CTN40060	DIODE SILICON	1N4006-A5
C4243	CS0UCH4Q2J	CC	470 PF 50V CH	D3809	D2ARMAB340	DIODE SCHOTTKY	SMAB34
C4245	CS0PB0N16K	CC	1 UF 10V B	D3810	D4CT01H6A0	DIODE RECTIFIER	1H6-A2
C4246	CS0RB0N17K	CC	10 UF 10V B	D3812	DJBUA30012	DIODE ZENER	HZS30NB2
C4247	CS0UCH412J	CC	100 PF 50V CH	D3813	DJBUA15012	DIODE ZENER	HZS15NB2
C4250	CS0RB0N17K	CC	10 UF 10V B	D3814	DDARR730E0	DIODE SCHOTTKY BARRIER	KDR730E-RTK/P
C4251	CS0RB0N17K	CC	10 UF 10V B	△D3815	D4AT106FE0	DIODE RECTIFIER	RL106F-E
C4284	E7EPU2470M	CE	47 UF 16V	D3816	D1VT001330	DIODE,SILICON	1S133T-77
C5801	CS0UB0N15K	CC	0.1 UF 10V B	D3817	D28R11FS40	DIODE SCHOTTKY	EC11FS4-TE12L
C5805	CS0UCH4Q1J	CC	47 PF 50V CH	D3818	D28R11FS40	DIODE SCHOTTKY	EC11FS4-TE12L
C5806	E7EPU0221M	CE	220 UF 6.3V	△D3819	D28A10A450	DIODE SCHOTTKY BARRIER	FCQS10A045
C5808	CS0UB0N15K	CC	0.1 UF 10V B	△D3820	D2LT001F50	DIODE SILICON	1F5-E
C5809	CS0UCH4Q1J	CC	47 PF 50V CH	△D3821	D28A10A061	DIODE SCHOTTKY BARRIER	FCQS10A065
C5816	CS0UCH4L1J	CC	33 PF 50V CH	△D3822	D28A10A080	DIODE SCHOTTKY BARRIER	FCHS10A08
C5818	CS0UB0N15K	CC	0.1 UF 10V B	D3824	DJBUA11012	DIODE ZENER	HZS11NB2
C5819	CS0UB0N15K	CC	0.1 UF 10V B	△D3825	D2AA045CT0	DIODE SCHOTTKY BARRIER	MBRF1045CT
C5822	CS0UCH4L1J	CC	33 PF 50V CH	D3828	D28R1QS040	DIODE	EC31QS04-TE12L
C5823	CS0UCH4N1J	CC	39 PF 50V CH	D3829	DJBUA15012	DIODE ZENER	HZS15NB2
C5829	CS0PB02L5K	CC	0.33 UF 16V B	D3830	DJBUA15012	DIODE ZENER	HZS15NB2
C5832	CS0UB0N15K	CC	0.1 UF 10V B	D3832	DJBUA22012	DIODE ZENER	HZS22NB2
C5838	E7EPU0221M	CE	220 UF 6.3V	D3833	DJBUA18012	DIODE ZENER	HZS18NB2
C5844	CS0RB0N17K	CC	10 UF 10V B	D4001	DGERMA1110	DIODE SILICON	MA111-(TX)
C6201	CS0UB0215K	CC	0.1 UF 16V B	D6206	DGERMA1110	DIODE SILICON	MA111-(TX)
C6202	CS0UB0215K	CC	0.1 UF 16V B	ICS			
C6210	CS0UB0P14K	CC	0.01 UF 6.3V B	△IC301	I0WFP13TR0	SOUND AMP 2*20W	STA333W13TR
C6213	CS0PB0N16K	CC	1 UF 10V B	△IC2301	I1UFV5766S	5CH MOTOR DRIVER IC	AM5766
C6221	CS0UB0N15K	CC	0.1 UF 10V B	IC2801	I56M069750	SCALER	R8J66975BG
C8056	CS0UCH4S2J	CC	560 PF 50V CH	IC2802	IGXM05162E	DDR2-800 512M CL=5	H5PS5162FFR-S5C
C8501	CS0RB0N17K	CC	10 UF 10V B	IC2803	S54A09NE01	MEMORY DATA EEPROM SOIC M32P	AT24C32CN-SH-T
C8502	CS0RB0N17K	CC	10 UF 10V B	IC2804	-----	MEMORY DATA FLASH 32M SPI 8PIN	AT25DF321-SU
C8503	CS0RB0N17K	CC	10 UF 10V B	△IC3001	I53F9V5800	2.5A STEP DOWN SW REG +1.5%	LV5809NMX-TLM-H
C8504	CS0UCH412J	CC	100 PF 50V CH	△IC3002	I1ZF9110D0	VO=11V REG	R1190H110D-T1-F
C8507	CS0UCH4S2J	CC	560 PF 50V CH	△IC3003	IGRF0704U0	2A DROPOUT LINEAR REGULATOR	UP7704U8
C8511	CS0UB0N15K	CC	0.1 UF 10V B	IC3005	I1ZF9331D0	REGULATOR 3.3V	RP131H331D-T1-F
C8512	CS0UB0N15K	CC	0.1 UF 10V B	△IC3006	I53F9V5800	2.5A STEP DOWN SW REG +1.5%	LV5809NMX-TLM-H
C8513	E7EXU2100D	CE	10 UF 16V	△IC3801	I1KJ9A431A	VARIABLE SHUNT REGULATOR TAPE	KIA431A-AT
C8514	CS0UCH412J	CC	100 PF 50V CH	△IC3802	I16D052030	CURRENT RESONANT CTL IC	MCZ5203NA-7101
C8516	CS0UCH412J	CC	100 PF 50V CH	△IC3803	I5PD028HN0	VD=800V ID=3A	VIPER28HN
C8517	CS0UCH4U1J	CC	68 PF 50V CH	△IC3804	I1KJ9A431A	VARIABLE SHUNT REGULATOR TAPE	KIA431A-AT
C8518	CS0UCH4U1J	CC	68 PF 50V CH	△IC3805	I5HJ950UC0	REGULATOR VO=5.0V IO=800MA	S-1170B50UC-OJUTFG
C8519	E7ESU2101M	CE	100 UF 16V	IC3806	TK9A3443B0	FET	SI3443BDV-T1-E3
C8520	CS0UB0314K	CC	0.01 UF 25V B	△IC3807	I53F958930	1.8A 1CH STEP DOWN SW REG	LV5893M
C8521	CS0RB0N17K	CC	10 UF 10V B	△IC3808	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
C8522	CS0RB0N17K	CC	10 UF 10V B	△IC3809	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
C8523	CS0UB0N15K	CC	0.1 UF 10V B	△IC3810	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
C8524	CS0UCH412J	CC	100 PF 50V CH	IC4001	IC8K0389K0	DVD MPEG 128PIN MEDIATEK	MT1389QE/K
C8525	CS0UCH412J	CC	100 PF 50V CH	IC4004	-----	MEMORY DATA 16MBIT FLASH 100MHZ	EN25Q16-100HIP
C8529	CS0UB0314K	CC	0.01 UF 25V B	IC4005	IGXJ01620F	SDRAM 64M CL=2	HY57V641620FTP-7
C8530	CS0UB0314K	CC	0.01 UF 25V B	IC6201	IC7J0291C0	RESET IC 2.9 V TYPE CMOS	R3111N291C-TR-F
C8531	E7EST0102M	CE	1000 UF 6.3V	IC6502	I55F0A53FU	A/V SW 2IN 1OUT	TC7PA53FU(T5L,F,T)
C8532	CS0UB0N15K	CC	0.1 UF 10V B	IC8501	I0QF045650	DUAL OPEAMP	NJM4565M(Te1)
C8533	E7ESU0101M	CE	100 UF 6.3V	IC8502	I1ZF981D50	REGULATOR 1.8V	RP131H181D5-T1-F
C8534	CS0UB0413K	CC	0.001 UF 50V B	TRANSISTORS			
C8535	CS0UB0413K	CC	0.001 UF 50V B	Q2301	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8536	CS0UB0314K	CC	0.01 UF 25V B	Q2302	TAAA1505SY	TRANSISTOR SILICON	KTA1505S-Y-RTK/P
C8538	CS0UB0413K	CC	0.001 UF 50V B	Q2303	TAAA1505SY	TRANSISTOR SILICON	KTA1505S-Y-RTK/P
C8539	CS0UB0413K	CC	0.001 UF 50V B	Q2304	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
C8540	CS0RB0N17K	CC	10 UF 10V B	Q2305	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
DIODES				Q2805	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D2201	0021E9Q010	LED	LTL-1BEFJ-002A	Q2806	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D2301	DDARR730E0	DIODE SCHOTTKY BARRIER	KDR730E-RTK/P	Q2807	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D2302	DDARR730E0	DIODE SCHOTTKY BARRIER	KDR730E-RTK/P	Q3001	TJ5A104TU0	FET	SSM3K104TU(T5L,T)
D3001	D2ARMAB340	DIODE SCHOTTKY	SMAB34	Q3003	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
D3003	D2ARMAB340	DIODE SCHOTTKY	SMAB34	Q3007	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D3004	D2ARMAB340	DIODE SCHOTTKY	SMAB34	Q3008	TJ5MC61100	FET	TPC6110(Te85L,F,M)
D3007	D2ARMAB340	DIODE SCHOTTKY	SMAB34	Q3010	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK
D3601	D61R0V8001	DIODE VARISTA	EZJZ0V80010	Q3601	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
D3602	D61R0V8001	DIODE VARISTA	EZJZ0V80010	Q3602	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
D3604	D61R0V8001	DIODE VARISTA	EZJZ0V80010	Q3604	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
D3605	D61R0V8001	DIODE VARISTA	EZJZ0V80010	Q3605	T27T035410	FET	2SK3541_T2L
△D3801	D7KE143020	DIODE VARISTA	S14K300E2S5M4	Q3606	T27T035410	FET	2SK3541_T2L
△D3802	DOU014520M	DIODE VARISTA	DA38-452MB-M	Q3607	T27T035410	FET	2SK3541_T2L
△D3803	D2LZKBJ4J0	DIODE	KBJ4J	Q3608	T27T035410	FET	2SK3541_T2L
△D3804	D7KE101520	DIODE VARISTA	S10K150E2S5M4	Q3610	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
TRANSISTORS				MISCELLANEOUS			
Q3611	T27T035410	FET	2SK3541_T2L	B301	024HC51216	CORE,BEADS	HCB1608KF-121T20
Q3613	T27T035410	FET	2SK3541_T2L	B302	024HC13914	CORE,BEADS	HCB3216KF-391T20
△Q3802	TAAT01281Y	TRANSISTOR SILICON	KTA1281_Y	B303	024HC13914	CORE,BEADS	HCB3216KF-391T20
△Q3805	TJX06NF250	FET	STF16NF25	B304	024HC13914	CORE,BEADS	HCB3216KF-391T20
△Q3806	TJX06NF250	FET	STF16NF25	B305	024HC13914	CORE,BEADS	HCB3216KF-391T20
Q3807	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B2341	024HC56013	CORE,BEADS	FCM1608KF-601T02
Q3809	TAAA1504SY	TRANSISTOR SILICON	KTA1504S_Y_RTK	B2342	024HC56013	CORE,BEADS	FCM1608KF-601T02
Q3812	TNAAA05001	COMPOUND TRANSISTOR	KRC101S-RTK	B2801	024HC52213	CORE,BEADS	FCM1608KF-221T05
Q3813	TAAT012714	TRANSISTOR, SILICON	KTA1271_Y-AT	B2805	024HC51816	CORE,BEADS	HCB1608KF-181T20
Q3814	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)	B2807	024HC52216	CORE,BEADS	HCB1608KF-221T20
Q4203	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B2808	024HC52216	CORE,BEADS	HCB1608KF-221T20
Q4204	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B2812	024HC51216	CORE,BEADS	HCB1608KF-121T20
Q4205	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B2813	024HC51216	CORE,BEADS	HCB1608KF-121T20
Q4206	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B2814	024HC51216	CORE,BEADS	HCB1608KF-121T20
Q4207	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B2818	024HC52216	CORE,BEADS	HCB1608KF-221T20
Q4209	T27T035410	FET	2SK3541_T2L	B3001	024HC52216	CORE,BEADS	HCB1608KF-221T20
Q4211	T27T035410	FET	2SK3541_T2L	B3004	024HC51216	CORE,BEADS	HCB1608KF-121T20
Q4219	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B3008	024HC51216	CORE,BEADS	HCB1608KF-121T20
Q4220	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B3012	024HC51816	CORE,BEADS	HCB1608KF-181T20
Q4221	TPAAA05001	COMPOUND TRANSISTOR	KRA101SRTK	B3014	024HC51816	CORE,BEADS	HCB1608KF-181T20
Q4222	TCAA3875SY	TRANSISTOR SILICON	KTC3875S_Y_RTK	B3015	024HC51816	CORE,BEADS	HCB1608KF-181T20
Q4224	T27T035410	FET	2SK3541_T2L	B3016	024HC52216	CORE,BEADS	HCB1608KF-221T20
Q6203	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK	B3020	024HC51816	CORE,BEADS	HCB1608KF-181T20
Q8506	T27T035410	FET	2SK3541_T2L	B3802	024AC1121G	CORE,BEADS	BLM31PG121SN1L
Q8507	T27T035410	FET	2SK3541_T2L	B4003	024HC51023	CORE,BEADS	FCM1608KF-102T02
COILS & TRANSFORMERS				B4008	024HC51023	CORE,BEADS	FCM1608KF-102T02
L300	021AMG220M	COIL	22 UH	B4010	024HC51023	CORE,BEADS	FCM1608KF-102T02
L301	021AMG220M	COIL	22 UH	B4012	024HC51023	CORE,BEADS	FCM1608KF-102T02
L302	021AMG220M	COIL	22 UH	B4203	024HC51023	CORE,BEADS	FCM1608KF-102T02
L303	021AMG220M	COIL	22 UH	B4204	024HC51023	CORE,BEADS	FCM1608KF-102T02
L3001	021AMG4R7P	COIL	4.7 UH	B4206	024HC51023	CORE,BEADS	FCM1608KF-102T02
L3002	021AMG100M	COIL	10 UH	B4207	024HC51023	CORE,BEADS	FCM1608KF-102T02
L3005	02167E100K	COIL	10 UH	B4208	024HC51023	CORE,BEADS	FCM1608KF-102T02
L3008	021AMG100M	COIL	10 UH	B4214	024HC51216	CORE,BEADS	HCB1608KF-121T20
L3601	02D1000119	COIL CHOKE	EXC28CG900U	B4215	024HC56005	CORE,BEADS	FCM1608CF-600T06
L3602	02D1000119	COIL CHOKE	EXC28CG900U	B5803	024HC52216	CORE,BEADS	HCB1608KF-221T20
L3603	02D1000119	COIL CHOKE	EXC28CG900U	B6201	024HC51213	CORE,BEADS	FCM1608KF-121T06
L3604	02D1000119	COIL CHOKE	EXC28CG900U	B6202	024HC51213	CORE,BEADS	FCM1608KF-121T06
△L3801	029B000186	COIL,LINE FILTER	JLB28121	B6203	024HC51213	CORE,BEADS	FCM1608KF-121T06
L3802	02167E100K	COIL	10 UH	B6502	024HC51213	CORE,BEADS	FCM1608KF-121T06
L3803	02167E100K	COIL	10 UH	B8501	024HC51216	CORE,BEADS	HCB1608KF-121T20
L3806	02167E100K	COIL	10 UH	B8502	024HC51023	CORE,BEADS	FCM1608KF-102T02
L3807	021D0N220M	COIL	22 UH	B8503	024HC51216	CORE,BEADS	HCB1608KF-121T20
L5801	0216SDR27J	COIL	0.27 UH	B8504	024HC51023	CORE,BEADS	FCM1608KF-102T02
L5802	0216SDR27J	COIL	0.27 UH	CD301	06CP143601	CORD CONNECTOR	CP143601
L5803	0216SDR27J	COIL	0.27 UH	△CD501	120Q118901	CORD SET AC	LT01-001
L5805	0216SDR27J	COIL	0.27 UH	CP301	06GG140019	CONNECTOR PCB SIDE	A2502WR-4A
L5806	0216SDR27J	COIL	0.27 UH	CD2801	06EH2U1602	CORD CONNECTOR	EH2U1602
L8501	021ES11R8K	COIL	1.8 UH	CD3803	06CP2E1407	CORD CONNECTOR	CP2E1407
△T3801	048728001H	TRANSFORMER,SWITCHING	8728001H	CD3807	06CP283501	CORD CONNECTOR	CP283501
△T3802	0481190131	TRANSFORMER,SWITCHING	81190131	CD3808	06CP2F0902	CORD CONNECTOR	CP2F0902
JACKS				CD3809	06CP2E0903	CORD CONNECTOR	CP2E0903
△J3801	064Q1A0014	JACK,AC	CCT2302-0921FC	CD4201	06E82E2201	CORD CONNECTOR	E82E2201
J4202	062E741001	JACK (DIN)	S4-29SBZ	CD6201	06CP234004	CORD CONNECTOR	CP234004
J4203	060K481001	RCA JACK	AV3-6B-15H	CD6204	06CP255002	CORD CONNECTOR	CP255002
J4204	060K431043	RCA JACK	AV3-6D-14H	CP2201	06GG250029	CONNECTOR PCB SIDE	A2001WV-5A
J4205	060K431043	RCA JACK	AV3-6D-14H	CP2202	06GG230019	CONNECTOR PCB SIDE	A2001WR-3A
J4206	060K401144	RCA JACK	AV-4B-75H	CP2301	069EVKT060	CONNECTOR PCB SIDE	04_6232_122_015_800+
J4207	060K411059	RCA JACK	AV2-6B-08Z	CP2302	06GRV53019	CONNECTOR PCB SIDE	FCZ100E-05SS-K
J4302	060K131027	HEADPHONE JACK	CKX-035-349ABZ1	CP2303	06GRV43019	CONNECTOR PCB SIDE	FCZ100E-04SS-K
SWITCHES				CP2801	06GG270029	CONNECTOR PCB SIDE	A2001WV-7A
SW2201	0504101T34	SWITCH,TACT	EVQ21505R	CP2802	06GG2B0029	CONNECTOR PCB SIDE	A2001WV-11A
SW2202	0504101T34	SWITCH,TACT	EVQ21505R	CP2803	06GSAA1008	CONNECTOR PCB SIDE	C-001-1-4K121400
SW2203	0504101T34	SWITCH,TACT	EVQ21505R	CP2804	06GG2U0051	CONNECTOR PCB SIDE	A2006WV30
SW2204	0504101T34	SWITCH,TACT	EVQ21505R	CP3001	06GG2E0029	CONNECTOR PCB SIDE	A2001WV-14A
SW2205	0504101T34	SWITCH,TACT	EVQ21505R	CP3002	06GG2F0029	CONNECTOR PCB SIDE	A2001WV-15A
SW2206	0504101T34	SWITCH,TACT	EVQ21505R	CP3601	06GSYJ3098	CONNECTOR PCB SIDE	C-HDM-6-KK223110
SW2207	0504101T34	SWITCH,TACT	EVQ21505R	CP3602	06GSYJ3098	CONNECTOR PCB SIDE	C-HDM-6-KK223110
SW2208	0504101T34	SWITCH,TACT	EVQ21505R	CP3803	06GG2E0019	CONNECTOR PCB SIDE	A2001WR-14A
P.C.BOARD ASSEMBLIES				CP3807	069S280629	CONNECTOR PCB SIDE	A2001WV2-8P
PCB130	A54A09N130	DVD MT PCB ASS'Y	DMJ120B	CP3808	067U015019	WIRE HOLDER	B2013H02-15P
PCB240	A54A09N240	POWER PCB ASS'Y	CEJ555A	CP3809	067U014019	WIRE HOLDER	B2013H02-14P
PCB270	A54A09N270	OPERATION PCB ASS'Y	CEJ556A	CP4203	06G7S21501	CONNECTOR PCB SIDE	WD-00021-R
PCBDA0	A54A09NDA0	REMOCON PCB ASS'Y	CEJ557A	CP4205	06GG2E0019	CONNECTOR PCB SIDE	A2001WR-14A
PCBDH0	A54A09NDH0	DIGITAL PCB ASS'Y	CEJ554A	CP6202	06GG230019	CONNECTOR PCB SIDE	A2001WR-3A
MISCELLANEOUS				CP6204	06GG250019	CONNECTOR PCB SIDE	A2001WR-5A
B300	024HC51216	CORE,BEADS	HCB1608KF-121T20	CP8501	06GG2E0019	CONNECTOR PCB SIDE	A2001WR-14A

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		
MISCELLANEOUS				
	CP8502	06GG280019	CONNECTOR PCB SIDE	A2001WR-8A
	EL2401	124116281A	EYE LET	XRY16X28BD
	EL2402	124120301A	EYE LET	XRY20X30BD
△	F3801	0805T06301	FUSE	SCT 6.3A
△	F3803	0835A02505	MICRO FUSE	20N_2500FSW
△	F3807	0835A07005	MICRO FUSE	20N_7000FSW
	NR2801	110P4330M5	R,NETWORK	4D02WGJ0330TCE
	NR2802	110P4330M5	R,NETWORK	4D02WGJ0330TCE
	NR2803	110P4330M5	R,NETWORK	4D02WGJ0330TCE
	NR2804	110P4220M5	R,NETWORK	4D02WGJ0220TCE
	NR2805	110P4220M5	R,NETWORK	4D02WGJ0220TCE
	NR2812	110P4220M5	R,NETWORK	4D02WGJ0220TCE
	NR2814	110P4330M5	R,NETWORK	4D02WGJ0330TCE
	NR2815	110P4330M5	R,NETWORK	4D02WGJ0330TCE
	NR4002	11074330M7	R,NETWORK	CRA108330JV
	OS2201	077Q038009	REMOTE RECEIVER	KSM-2003TCW2P
△	SP301	070Y056012	SPEAKER	S0412F20
△	SP302	070Y056012	SPEAKER	S0412F20
	TM101	076R0SC011	TRANSMITTER	R56-2225
	TR4201	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
△	TU5800	0164K00030	DIGITAL TUNER	DTVA50CVH1019M
△	V2801	09E0132045	LCD	AX080A080G
	X2801	100GT02509	CRYSTAL	SMD-49 C25000H025
		1003T02733	CRYSTAL	HC49SFWB

RESISTOR

RC..... CARBON RESISTOR

CAPACITORS

CC..... CERAMIC CAPACITOR

CE..... ALUMI ELECTROLYTIC CAPACITOR

CP..... POLYESTER CAPACITOR

CPP..... POLYPROPYLENE CAPACITOR

CPL..... PLASTIC CAPACITOR

CMP..... METAL POLYESTER CAPACITOR

CMPL..... METAL PLASTIC CAPACITOR

CMPP..... METAL POLYPROPYLENE CAPACITOR